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REVIEW

A remarkable political event took place in the United States recently.

It came swiftly upon an unsuspecting Washington in an unusual display of direct democracy that was neither organized by an election nor triggered by an immediate event.

It was the unexpected surge in public debate about nuclear war.

Fears of War, Programs for Peace

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4 Perspectives

6 Fears of War, Programs for Peace

John Steinbruner

How best to unify strategic policy while promoting the cause of peace? After two decades of debate, a drama is unfolding in the American political system.

11 Are the New Economic Models the Answer?

Martin Neil Baily

The flaws in mainstream economics have shown clearly in the past decade, and new ideas are needed. Rational Expectations theorists think they've got the right ones.

15 The Pipeline Connection: Issues for the Alliance

Ed. A. Hewett

The Reagan administration has been trying to stop the European-Russian gas pipeline deal. Questions about long-term U.S. policy and strains among allies are the only results so far.

21 Interview: A. Doak Barnett

Brookings' noted China scholar reflects on his multifaceted career and the state of American-Chinese relations.

24 Tough Times for Pension Plans

The Economics of Private Pension Plans shows the plans are suffering from inadequate coverage, financial pressure, and poor returns on investment.

25 An American Dilemma: The Military Racial Mix

Blacks and the Military discusses the complex issues raised by the disproportionate representation of blacks in the U.S. armed forces.

27 What's Ahead for the Cities?

Urban Decline and the Future of American Cities reports on the effects of continuing urban population and job loss and makes a case for public policy responses.

29 Brookings Today

31 Looking Back, Looking Forward

Bruce K. MacLaury

Perspectives

The Value Added Tax: Some Lessons and Issues

Henry Aaron

The value added tax belongs to a class of issues sufficiently interesting and attractive never to quite die, but not sufficiently appealing ever to be adopted.

The traditional reasons for supporting the VAT all flow from questions of tax structure. Supporters typically advocate reducing the taxation on savings, and they see the VAT as one effective device to achieve this. They suggest that since a number of countries have adopted the tax and have stuck with it, it may be a good idea for the United States to consider it as well, and that it would be simpler to administer than the personal income tax and possibly than the corporation income tax.

Opponents also oppose the tax on grounds of tax structure. They point out that, measured in relation to income, it's almost inevitably a regressive tax. Even measured against consumption, it's a uniform tax—i.e., a tax that is proportional to consumption. They have been concerned about the inflationary effects of imposing the VAT, and have suggested that, although it may be a good idea in principle, now (whenever “now” happens to be) is not the time to do it.

About two years ago Brookings and the German Marshall Fund commissioned six authors from Italy, Germany, France, the Netherlands, England, and Sweden to write about the experience of their countries with the VAT. We asked each to comment on the effects on savings and consumption, the balance of trade, the price level, the

effect on income distribution, and the problems that came up in the process of implementation of the tax.

The VAT was found to have had little effect on consumption, saving, investment, or trade. Part of the reason was that a number of European countries chose it to replace some other form of sales tax or combination of taxes that they regarded as inferior and which were relatively unpopular.

The VAT was able to raise a similar amount of revenue with less distortion among different industries. France was the first country to adopt it. Eventually, it became the policy of all EEC countries to rely on a relatively similar kind of VAT. All the VATs in Europe are of what is called the consumption variety, that is, all purchases of investment goods are deducted and not included in the tax base.

If we were to adopt a VAT, we would have to consider the relationship between it and retail sales taxes.

Nobody reported any detectable effect on the allocation of resources between consumption or saving, or on the balance of trade (with the exception of Italy, which was forced to adopt the VAT under the threat of penalties after missing deadlines set by the EEC).

The biggest surprise among the reports was that the value added tax was not regressive in any of the six countries. Rather, it was reported to be roughly proportional with respect to income. Instead of imposing the tax at a uniform rate on all consumption goods, the Europeans exempt some commodities and impose lower rates of tax on others. In effect, they've superimposed some positive and negative excise taxes on the VAT. They impose lower than average taxes on necessities, items that are consumed disproportionately by people with low incomes. They tax commodities consumed disproportionately by people with higher incomes at higher than average rates, with the degree of variation varying from country to country.

Thus, with rate differentiation, the Europeans have managed to pull the regressivity out of the value added tax, but they paid a price for it: the loss of administrative simplicity. Once there are different rates of tax on different classes of commodities in a broad-based consumption tax, there are serious definitional problems. Is ice cream a dessert or a food, if desserts are taxed at a higher rate than non-confections? What is a fish? What is entertainment? What is a home appliance? Radios and televisions are taxed at different rates. Theater tickets for different kinds of events are taxed at different rates.

Most of our writers thus felt that, on balance, the rate differentiation was a mistake, that in highly developed industrial countries with

well-articulated systems of transfers and income taxes, it is better to keep the VAT clean, proportional with respect to consumption, regressive with respect to income, and simple, and to take care of income redistribution questions with instruments other than the value added tax.

There is one important difference between the European experience and our own: The United States is a federal nation with a highly developed system of state and local retail sales taxes. That is not the case in Europe, except for Germany. If we were to adopt a VAT, we would have to consider the relationship between it and retail sales taxes.

In the U.S., it is not tax structure that has caused the current interest in the VAT, but the huge budget deficits that the administration's policies are exacerbating. The size of the deficits is at the center of current political debate, and people are looking for some instrument for reducing them. The value added tax is one such instrument.

In short, a macroeconomic problem—the deficit rather than a concern over the tax structure—is now leading us back to interest in the value added tax.

Depending upon how comprehensive the tax base is that you use for the VAT, each percentage point of tax in 1983 would yield somewhere between \$10 billion and \$17 billion. The difference between those two numbers hinges on whether one thinks that Congress would include in the tax base such items as medical care, food, private education and research, religious and welfare activities, and similar items. If you include all of these, you end up with \$17 billion. If you don't include any of them, you end up with about \$10 billion per percentage point of VAT.

You can put all of this in another context. The projected 1983 high employment deficit of the government (i.e., 6 percent unemployed) is going to be about 2.3 percent of the GNP, given the Reagan budget and most of his budget reductions.

Each percentage point of VAT yields somewhere between three-tenths and five-tenths of a percentage point of GNP in revenue.

A broad-based VAT could eliminate the high employment deficit with a 5 percent tax; with a narrow-

The most important question about a value added tax concerns what its revenues are used for.

based tax, it would take an 8 percent tax. These are *estimates* of the magnitude of VAT that would deal with the deficit problem in toto that we now face.

Turning to the issues in tax structure, I'd like to point out that the problems that arise in our existing income tax because of the coexistence of savings incentives with interest deductibility, and hence the possibility of tax arbitrage, are not inconsistent with what may appear to be a conflicting observation. That observation is that the overwhelming majority of Americans already live in a consumption-tax world, as things actually operate. That is the case because most Americans do not itemize their deductions and, hence, do not take advantage of interest arbitrage.

For most of them, and indeed for most of those who do itemize, the major assets that they have are an owner-occupied house and a private pension plan and, incidentally, social security, none of which are taxed currently under the income tax. In effect, those assets are treated as they would be under a consumption tax, or even more favorably than they would be under a consumption tax.

Henry Aaron is a senior fellow in the Brookings Economic Studies program. He delivered an earlier version of these remarks at a Washington, D.C. seminar on the value added tax last spring.

Even for those who itemize, many have not fully exhausted their opportunities for tax-sheltered savings through individual retirement accounts or Keogh plans, through owner-occupied housing, through a private pension, and so on. They are, in effect, saving all they want to at the margin, and may have relatively modest amounts of interest deductions or may be constrained from increasing the amount of private borrowing by the transaction costs of doing so.

I think there are considerable opportunities for improving the mess in which we find ourselves. The damage that was done to our tax structure by the Revenue Act of 1981 is hard to exaggerate. I think there is considerable room for improving that system that would advance the cause of consumption taxation, even if it didn't move us all the way through to the full wealth accounting that would be required.

Specifically, what we have now is a system where you can have tax-sheltered savings through all sorts of different devices: all-savers certificates, Keogh plans, individual retirement accounts, qualified pension plans, owner-occupied housing. Strong pressures will arise to try to coordinate this messy collection of incentives. There is scope for coordinating these incentives, and simplifying them, and broadening them so that distortions are reduced.

In the end, the most important question about a value added tax concerns what its revenues are used for. The political and economic effects of a VAT used to finance repeal of the corporation income tax (as the Committee for Economic Development suggested in the 1960s) are very different from those of a VAT used to finance national health insurance or to forestall reductions in food stamps and medicine. How those revenues are used is far more important, in my opinion, than is the direct effect of a value added tax on tax structure or on saving, the balance of trade, or other economic indicators. 

Fears of War, Programs for Peace

In the continuing debate about nuclear confrontation, the American political process has some important contributions to make to the cause of international security.

John Steinbruner

THE RECENT SURGE in public debate about nuclear war is a remarkable political occurrence. It came swiftly upon an unsuspecting Washington in an unusual display of direct democracy not organized by an election or triggered by any immediate event.

In early February Congress was completely preoccupied with the developing battle over the president's budget, and major diversions were difficult to imagine. Within seven weeks, that compelling fixation was at least momentarily diluted as strong public resonance with the idea of a freeze on nuclear weapons forced immediate reactions across the spectrum of Congressional opinion. Twenty-six Senators joined the Kennedy-Hatfield resolution promoting the freeze; 61 joined the competing Jackson-Warner resolution designed to contain it while paying respect to its political appeal. On March 30 the House scheduled 18 hours of general debate on nuclear weapons so that its members could establish their position on the public record—an intervention in normal House routine that had not occurred since the Viet Nam War.

By early May the pressure of public opinion had induced President Reagan to take significant steps away from his posture of confrontation toward the Soviet Union. After having allowed arms control to languish in bureaucratic dispute during his first 14 months in office, the president suddenly marshalled his administration to formulate a proposal for substantial reductions in nuclear weapons and advanced the proposal himself in a commencement speech to his alma mater, a forum symbolizing both personal and diplomatic significance.* He thereby incurred a commitment likely to affect how history judges him. And by officially acknowledging that an end to martial law in Poland was no longer a precondition for

attempts to relieve the tension of U.S.-Soviet relations, he implied that other indirect issues would not interfere with that process either.

By themselves these developments are hardly decisive, but the public's evident concern and the politicians' rapid response do signal an unfolding drama of major significance. The political process of the large American democracy is attempting to cope with the unique pressures of modern destructive technology and is moving beyond the comfortable political indulgence of blaming the Soviet Union for all that is wrong with conditions of security. As this happens, American security policy is encountering a collision between strongly held political beliefs and unyielding circumstances with grave consequences at stake. The public response is a timely one. The moment has come for sober reflection and careful attention.

Beneath the technical complexity and cosmic rhetoric that accompany nuclear weapons policy lie major issues that are actually reasonably simple. There is a strong consensus in the United States that some weapons are needed to deter nuclear attack by threat of retaliation. Though there is no agreement on the precise number required for that purpose, it is generally concluded that current U.S. and Soviet nuclear weapons inventories substantially exceed minimum requirements. Beyond that, the main bodies of opinion diverge quite sharply. The long-prevailing policy of limited mutual restraint on American and Soviet nuclear weapons deployment is under attack from two major perspectives: One seeks significant shifts in the current balance of forces that would be advantageous to the United States, and a second seeks dramatic reduction in overall destructive capabilities.

* In November of 1981 the president advanced a proposal for reduction in nuclear weapons deployed in the European theater, and formal negotiations with the Soviet Union on this subject began shortly thereafter. Though that also was a major development in the president's policy—evidently taken in response to public opinion in Europe—it had only limited practical significance

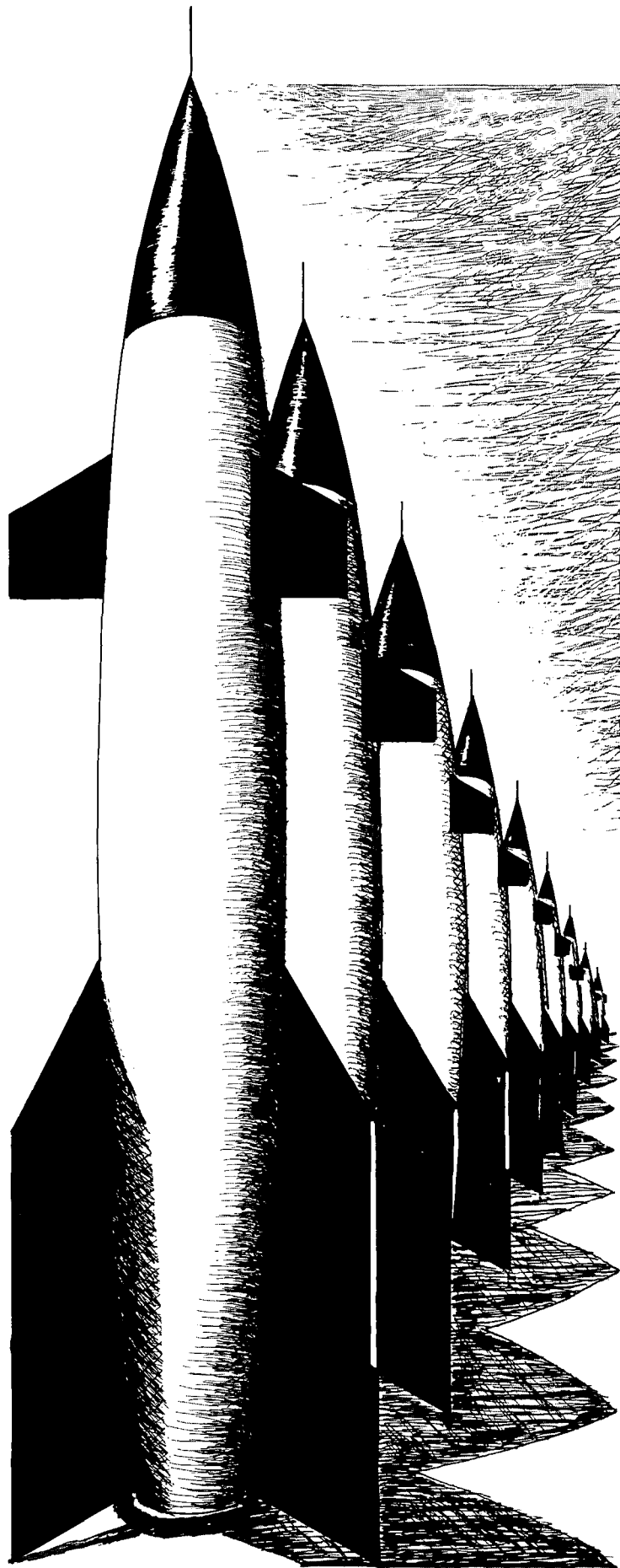
as long as global arms restrictions remained in doubt. With British and French nuclear forces excluded from the negotiations, and with the United States proposal attempting to relate *prospective* NATO nuclear response to existing Soviet weapons, there appeared to be little chance for success unless theater forces restrictions could be incorporated into a more general arms agreement.

Beginning in 1965 and continuing for approximately a decade thereafter, mutual restraint gradually emerged as the dominant impulse of American strategic policy, and current defense planning still rests on that policy despite the fact that political fashion has turned against it in recent years. As of 1965, by nearly all measures of the military balance, U.S. nuclear forces exceeded those of the Soviet Union. That was a comfortable circumstance, but most serious military planners recognized that it did not confer decisive security advantages. The destructive power of the Soviet Union could not be eliminated: Even after suffering attack it would be too large to allow any major use of American nuclear weapons for purposes other than deterrence. It was already becoming clear that the Soviets had instituted a major effort to redress the unfavorable balance in weapons inventories. The general judgment was that an effort to maintain significant American numerical advantages would be futile and unwise. That in turn inspired an effort to define restriction on U.S. and Soviet strategic forces once approximate parity had been reached.

The SALT I and SALT II treaties were products of this logic. They succeeded in formulating mutually agreed restrictions, primarily because in the interest of practicality their objectives were modest. In general, the only weapons deployments prevented were those to which neither party had yet committed itself; existing weapons programs for which decisions had already been made were largely exempted from restriction. Thus numerical limits prevented increases in planned deployments of major offensive weapons, but technical modernization programs on both sides were allowed to run their course (notably, a retrofitting of missiles with multiple warhead payloads).

Minor reductions were provided by allowing some obsolete weapons to pass out of the inventories unreplaced. Equal ceilings on major weapons categories were also defined, but underlying historical differences in the design of the two forces were allowed to stand. In particular, the Soviets were conceded a larger payload capacity in their land-based missile force. As a partial exception to the rule of exempting on-going programs, ballistic missile defenses were regulated well below planned deployments, largely because both sides recognized that their intended deployments were technically unattractive.

The SALT treaties were major achievements in



practical diplomacy. They successfully reconciled the conflicting interests of two intensely hostile, mutually suspicious powers. The compromises they embodied, however, exposed them to attack by those espousing more demanding strategic principles and contrary political objectives. The treaties formalized a balance of forces that was an accident of history rather than a logical strategic design.

An Alliance of Minorities

Because of the exemptions for existing weapons commitments, the restrictions imposed would only become seriously binding more than a decade after acceptance of the treaties. In the meantime large increases in Soviet capabilities were produced by modernization programs that ran throughout the 1970s. Under the ceilings of SALT I, the Soviet forces did not increase in size, but their destructive power did increase quite dramatically as more advanced weapons replaced older ones—particularly as the SS-18 replaced the SS-9 and the SS-19 partially replaced the SS-11. Though the limits incorporated in the SALT II treaty prevented this increase in Soviet destructive power from becoming larger than it otherwise might have, that was an abstraction whose significance few appreciated. Political reaction in the United States focused on two simple facts: The destructive power of Soviet strategic weapons more than doubled from 1970 to 1980 and grew to exceed that of the United States in some of the measures used.

Imperfections of the SALT treaties and the increases in Soviet capability provided politically effective arguments for those who had always wanted much larger American offensive forces and fully developed defensive forces. They believed that the United States should have more than basic deterrence, that American forces should be prepared to reduce the damage the U.S. would suffer if deterrence failed—in effect, to fight a nuclear war to a meaningful military conclusion. For that objective, superior offensive forces were required for preemptive attacks on Soviet forces, and high-quality defense was required to resist forces that could not be stopped with preemptive strikes.

These arguments had been rejected when the policy of mutual restraint was established, but their proponents remained strong within the American political system as they maintained the leverage of an intense minority. This leverage was enhanced when their technical arguments found natural alliance with another intense minority—those whose principal political concern was to intensify opposition to the Soviet Union and its policies.

Although proponents of larger U.S. strategic forces were not able to establish an objective that would

readily justify major increases, they were able to cast serious doubt on the adequacy of existing forces and on the policy of mutual restraint which imposed ceilings on them. They found an effective focus for this doubt in the fact the American ICBM installations—limited by the SALT I treaty to 1,054—became more vulnerable to destruction as Soviet missiles were fitted with multiple warhead systems of advanced accuracy, apparently to a degree that might tempt preemptive attack.

In raising alarm about this development, they promoted with at least rhetorical success a more demanding criterion of protection than had been previously established; namely, the principle that each separate element of U.S. strategic forces—land-based missiles, submarine-based missiles, and bombers—rather than simply the aggregate force as a whole should be invulnerable. The fact that the SALT II treaty did not prevent the ICBM vulnerability problem from emerging became a flaw in the treaty serious enough to warrant its rejection, even in the absence of an acceptable unilateral solution to the vulnerability problem.

The practical limitations of SALT I and II also inspired dissent from strong proponents of arms control who argued that the treaties ratified excessive inventories of existing weapons and stimulated deployment of new weapons that had not been included in the formal restrictions. This strand of opinion was sharply critical of SALT I for allowing multiple warhead missiles to multiply the destructive power of the controlled forces and for stimulating deployment of cruise missiles primarily because they had escaped the treaty's restrictions. Though SALT II did limit multiple warheads and cruise missiles, the controls were permissive, allowing large warhead totals and major loopholes for future cruise missile applications. With extensive delays in the treaty negotiations, the principal concern of arms control advocates—a major reduction of forces—appeared to be indefinitely postponed.

Weak Positions Vetoed

Over the past decade dramatic arms control measures have not been supported with a political intensity rivaling the campaign for improvements in U.S. forces, and the influence of these arguments within the defense planning bureaucracy has been commensurately weak. Prominent individuals are deeply committed to stronger arms control and have formed active organizations. Public reaction, however, while generally supportive, has been tepid and diffuse. On these matters, as on many others, weakly held majority positions are readily vetoed by strongly committed minorities.

With little serious prospect for stronger measures, the arms control community staunchly supported the

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SALT II treaty. Although their public political standing was damaged when the invasion of Afghanistan prevented Senate approval of the treaty, arms control advocates did find effective alliance with intense environmental and water conservation interests in resisting deployment of the MX missile. They have not been able to divert professional defense planners from that enterprise, but they have been able, so far, to prevent political approval. Most recently, with a more favorable climate of opinion developing, they have been presenting their program with more confidence. Essentially they ask for simultaneous and comprehensive restrictions on nuclear weapons followed rapidly by substantial reductions.

Three Strategic Elements

The net effect of these internal American arguments has been an impasse in defense planning and incoherence in policy. The partial restrictions of the SALT treaties which still set the framework for strategic planning remain unratified. Informal preservation of these restrictions is in the hands of an administration that pronounces them "fatally flawed" and asserts the SALT II treaty itself is "dead," terms that inevitably qualify official pledges not to undermine the treaty.

Under rising pressure of opinion, President Reagan has advanced the idea of dramatic force reductions as a means of securing his principal commitment to an improvement in the relative terms of the strategic balance. That creates the potential for alliance between the two main bodies of dissenting opinion, but the specific proposal advanced promotes its purposes in disregard of practicality. It is so favorable to the United States that President Brezhnev pointedly questioned its sincerity even as he accepted the idea of renewed negotiations.

If formal negotiations stall in an exchange of one-sided proposals, as is likely, then sharp disagreements over tactics already reflected in the competing Senate resolutions will quickly become apparent in the United States. The Reagan administration wishes to threaten the Soviet negotiators with prospective U.S. force increases; the arms control community argues for restraint to prevent a renewed arms race. So far each side has been able to retard the program of the other. Neither major improvements in the balance nor stable restrictions are immediate prospects, and the intermediate course of practicality stands in political jeopardy. We are a house divided.

Though facts are notoriously difficult to establish independent of perspective, there are a few basic features of the strategic situation that are gradually imposing discipline on the contending arguments, no matter how unwelcome that discipline may be.

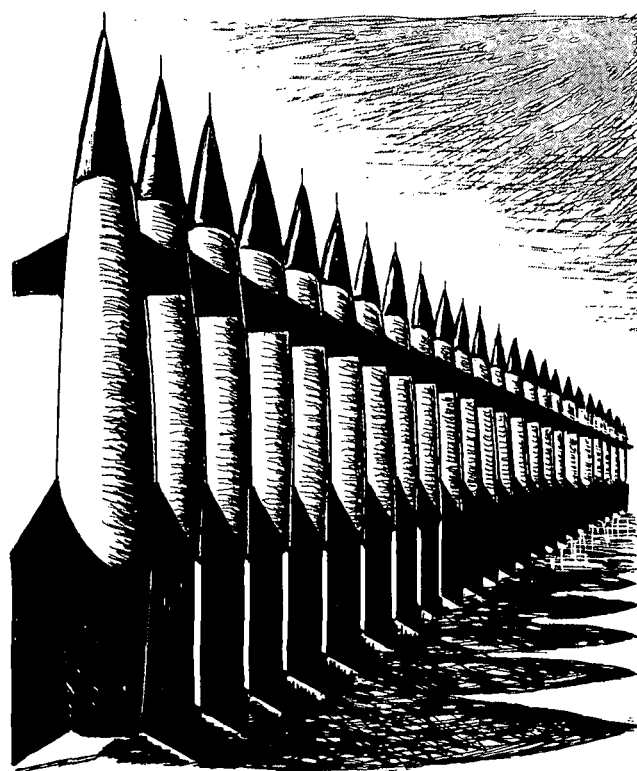
The first is that, after 30 years of intense technical development and massive investment, the current

balance of strategic weapons is highly resistant to fundamental change.

Large, one-sided increases or decreases in force levels would be required to have a major effect on the relative security positions of the United States and the Soviet Union. For all the rhetoric about momentum and competitive defense spending, neither country is in a position to make such changes. Both have largely completed their major strategic weapons programs and are projecting in their budgets only gradual developments on the margin. Though there are some significant improvements in prospect, nothing on the technical horizon appears capable of transforming the strategic balance in the way that the first introduction of thermonuclear warheads, ballistic missiles, computers, and advanced inertial guidance did. Given strongly competing domestic economic priorities and limited technical opportunities, neither country is likely to attempt a major unilateral gain. If one did try, the other would be virtually certain to respond in kind. Whatever one believes about the degree of direct arms competition in the past, it is a very good bet that for the present and for the foreseeable future the size and technical composition of United States and Soviet nuclear forces are pegged to each other.

The second feature is that with very large destructive capabilities in place that are now both technically and organizationally mature, there are strong, ultimately unavoidable pressures to shift the central focus of strategic policy from issues of size and capacity to issues of management.

The vulnerability of modern industrial societies and military organizations to nuclear attack will remain



extremely high under any of the force levels now contemplated. Even immediate 50 percent reductions would not eliminate that vulnerability. The principal problem is no longer the size of the nuclear establishments but rather the safe management of complex interactions between them. The opportunity for preventing the creation of large destructive capabilities has been lost. National security policy must now deal with the more complex questions of intention. It is a stable *sense* of mutual restraint between the United States and the Soviet Union that is the major objective yet to be achieved, and the principal prize for any negotiation. Without established expectations of restraint, international security conditions are unacceptably dangerous and potentially unmanageable.

The third element of the strategic situation is that the issue of restraint is ripe and cannot be postponed to a more convenient time.

Political expectations are not nearly as stable as the underlying balance of forces. The respective American and Soviet planning systems are poised on the brink of major new forms of weapons deployment—sea-based cruise missiles in the United States, for example, and mobile land-based ICBMs in the Soviet Union. Commitments to deployment of these systems are not likely to transform the balance of destructive capability but would inflame existing fears about its trend and could induce serious deterioration in political relations.

The long-anticipated transition in the Soviet leadership is apparently beginning, and it is certainly a strong possibility that relations with the United States will be a significant issue in the process. If restraint and reasonable accommodation with the United States are not politically viable principles as the Soviet leadership renews itself, the consequences could be grave and enduring.

Moreover, the security policies of Western European governments are extremely sensitive to the state of U.S.-Soviet relations. Irreversible damage to the NATO alliance could occur if European demands for credible restraint are not met. In general, the politics of international security are unusually unstable and reactive now. If the principle of restraint in American-

Soviet relations is not significantly strengthened over the next few years, events are likely to bring major deterioration.

After nearly two decades of inconclusive struggle among strong-minded partisans, a reasonable compromise that would unify American strategic security policy and promote the cause of peace can hardly be discussed with breathless anticipation. Nevertheless, that remains the course of maximum hope—a necessary accomplishment if the United States is to act coherently.

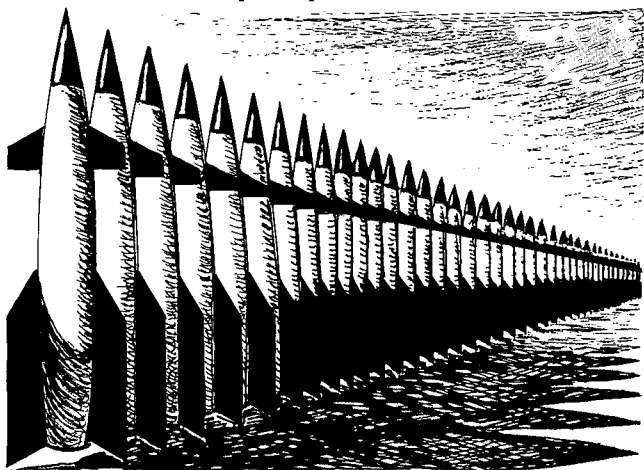
The Obvious Contributions

At least at the level of basic logic, compromises of this sort have been outlined. The force reductions which President Reagan has proposed, for example, could be substantially accomplished within the strategic weapons categories defined in the SALT II treaty. The treaty distinguishes heavy missile launchers, land-based and submarine-based missile launchers with multiple warheads, bombers with cruise missiles, and total strategic nuclear-delivery vehicles. If the weapons allowed within each of these categories were reduced by half, most of the president's objectives would be met or approximated, and Soviet insistence on preserving the main provisions of SALT would be honored as well. If means can be found to account for British, French, and Chinese nuclear deployments, intermediate-range weapons might be added as an additional category.

The freeze principle could be embodied in this arrangement by holding existing deployments below the SALT ceilings in those categories where deployments have not yet reached them, and by preventing any further modernization of the forces with systems of new design. The provisions of the treaties for verifying compliance through independent technical observations would not need any major adjustment to accommodate these additional restrictions. Though these provisions, also the product of diplomatic compromise, do not preclude all imaginable forms of cheating, they do give substantial assurance that militarily significant violations would be detected.

This package would obviously not give everyone all they want. But neither will any other.

In the end, the issue is more a matter of political purpose than of logic. An attitude of compromise in the United States and a commitment to forge reasonable consensus will not by themselves prevent war, freeze weapons inventories, or decrease capacities for destruction. Obviously, the Soviet Union will have to be reasonable as well. These are, however, the most obvious contributions that the American political system can make. If the resurgent interest of the public has the effect of imposing this responsibility on its leaders, the cause of international security will have been well served indeed. B



Are the New Economic Models the Answer?

Economists are divided over the rational expectations challenge to mainstream solutions for inflation and unemployment. It is not just an academic squabble.

Martin Neil Bailly

THE POLICY ADVICE offered over the years by most economists concerned with inflation and unemployment has been derived from a mainstream, or conventional, view of how the economy works. Recently, this mainstream view has been subject to a major challenge growing out of the work of Robert Lucas of Chicago, Thomas Sargent of Minnesota, and many of their colleagues and followers. The economics profession is now deeply divided and the debate between the two schools of thought has been vigorous and at times acrimonious.

A lot more than an academic squabble is at stake here. These are difficult and turbulent times for the economy of the United States and, indeed, for the whole world. Hyperinflations and massive unemployment both occurred prior to World War II, and to some degree were a cause of that war. If we are to recover from our current problems and avoid the disasters of the past, we will require wise economic counsel. And that can only be based on a sound understanding of the causes of economic fluctuations and inflation.

This article is occasioned by the recent publication of three volumes of collected papers that represent a coming of age of the new "rational expectations" or "equilibrium" model of the business cycle developed by Lucas and Sargent.* I will try to explain, first, the new ideas themselves; second, the criticisms of the mainstream approach by the new theorists; and, third, what I think is wrong with the new ideas. However, I do not intend to give a ringing endorsement of the old mainstream view. The last ten years have seen

steadily worsening combinations of inflation and unemployment. The time is right for new approaches. The intellectual ferment and the influx of new ideas from the rational expectations school have enriched our understanding, even though they have not convinced me there is a valid new framework for economic policymaking.

The new theory has three basic ingredients. The first is that prices and wages are determined competitively and adjust with complete flexibility to clear all markets; that is, supply always equals demand.

The second is that markets behave as if the persons trading in them use whatever information is available efficiently when they make the decisions that will determine their own income or profits in the future. This is what is meant by rational expectations. It implies that individuals and firms must have an intuitive understanding not only of how they are affected by economic events occurring in their own particular industry or market, but also of how general monetary and fiscal policy, and even worldwide economic events, will affect them.

The third ingredient is that observed cyclical fluctuations in the economy result from the short-run errors that individuals make. People do have limited information, since using today's information efficiently to forecast the future does not mean knowing what will actually happen.

With these three assumptions, it follows that in the absence of any major disturbance or shock the economy will operate efficiently—so that no one can be made better off without making someone else worse off.

At the level of the individual firm or worker, changes in the technology, movements in world trade, and even the weather may all create uncertainty and

* *Rational Expectations and Econometric Practice*. Robert E. Lucas, Jr., and Thomas J. Sargent, eds. University of Minnesota Press, Minneapolis, Minn., 1981. Vols I and II. *Studies in Business-Cycle Theory*. Robert E. Lucas, Jr., MIT Press, Cambridge, Mass., 1981.

lead to layoffs and unemployment. Output and employment fluctuations may be quite large for particular firms or industries. In the aggregate these fluctuations will tend to average out, so that total output and unemployment will remain fairly constant. The unemployment rate in equilibrium—called the “natural rate”—results from frictional and structural adjustments that occur in individual firms and markets.

The Causes of Fluctuations

Fluctuations in the aggregate demand for goods are taken to be the main cause of observed business cycles, where output and unemployment for the economy as a whole deviate from their equilibrium or natural levels. The rational expectations economists see erratic and unpredictable government policy as the principal cause of such demand fluctuations. In particular, changes in the quantity of money induce cyclical fluctuations in the economy.

When the Federal Reserve Board acts to reduce the supply of money, there is less money relative to the amount of goods being produced. Money is scarce, and so the terms upon which goods and money are exchanged alter—the price level declines. (In practice this may mean that the rate of inflation has declined, not the price level itself. But that is only a complication and does not change the basic story.) An individual firm finds that the price it can get for its own product has declined, but at first it does not realize that the general price level has declined.

That is an important distinction, for if everyone knew that all prices had fallen there should be no effect on output or employment. After an across-the-board change in all prices and wages, firms would still maximize their profits at the same level of production. But because each individual firm believes at first that its own price has fallen relative to other prices, it cuts back its output.

An increase in the money supply runs this process in reverse, as firms believe their relative prices have risen and increase their output.

(This approach contrasts with the mainstream model, where tight money has no direct effect on the price level, but instead raises interest rates. High interest rates depress demand, particularly for houses and automobiles, and output falls. The inflation rate then declines slowly. Loose money lowers interest rates and encourages spending.)

The power of policy changes to affect real output is limited, however, because people soon catch on to the fact that the price level has changed. They go back to producing at their normal levels. Moreover, rational expectations theorists stress that changes in

the quantity of money should not be viewed as isolated events, but as actions growing out of a particular policy regime. Private individuals then come to learn the way in which policy is made, and it is only the unanticipated government policy changes that can cause output to vary or unemployment to deviate from its natural rate.

This means, in particular, that any systematic rule for adjusting policy in response to events will have no effect on output or unemployment, once the private sector has learned of it. Thus in this model systematic stabilization policy is quite powerless to stabilize. This “policy ineffectiveness” theorem startled the profession and has influenced current thinking in Washington.

As well as presenting their own ideas, rational expectations theorists have been forceful critics of the mainstream model. Lucas and Sargent have frankly acknowledged the flaws in the models and the rather mixed results of empirical tests of them. But they are wholehearted proponents of their approach, nonetheless, because they believe that any alternative to it is intellectually bankrupt.

Keynes assumed that money wages were fixed. This assumption was subsequently replaced in the mainstream macro models by the Phillips curve, an empirically based relation in which the rate of change of money wages responds to any excess or shortage of labor, but only slowly. When coupled with another empirically based relation that links prices to wages, this provided the basis for models of the economy in which output, unemployment, and inflation evolve over time and move only slowly toward full employment levels, or the economy may become unstable. These models then make a case for stabilizing policy measures.

Attacks on the Old Models

Rational expectations theorists have attacked these mainstream models as being without a basis in the theory of individual decision-making. They point out that predictions made from a Phillips curve estimated through the 1960s proved inaccurate in the 1970s. This is clear evidence that these estimates had not uncovered a long-run structural relation of the economy. Moreover, these critics note that there is a serious inconsistency between the assumption of sticky or slowly adjusting prices made by mainstream economists when they talk about policies toward individual industries.

The slow adjustment or stickiness of the rate of wage and price inflation that is a feature of the mainstream models implies that many things are bought and sold at prices that are not at their market-clearing levels. In particular, wages adjust slowly so that jobs are rationed during recessions. This means that the unemployed are considered to be idle invol-

Martin Neil Bailly is a senior fellow in the Brookings Economic Studies program. An earlier version of this article appeared in *Science* magazine, May 21, 1982, Vol. 216, No. 4548, pp. 859–862. Copyright 1982 by the American Association of Science.

untarily. They would like to work at prevailing wages but cannot find jobs. Rational expectations theorists argue against this view, saying that except in periods of wage and price controls any firm can choose to change the price it charges or the wage it pays. If the firm chooses not to change or if workers refuse to accept a cut in pay then, almost by definition, any excess unemployment or slack capacity must be voluntary. Robert Lucas states that cyclical unemployment is a form of leisure.

An important implication of the mainstream models is that policy faces a trade-off between inflation and

of the cycle makes excess unemployment a result purely of unexpected events. This should mean that unemployment fluctuates at random around its natural rate or equilibrium point. Instead, high unemployment in one year tends to be followed by high unemployment in the next year.

There are various attempts to deal with the persistence problem facing the new theory, but these strike me as unconvincing. The most plausible on theoretical grounds is to postulate that firms cannot adjust their output or employment without cost. Low output and employment levels this year follow low



unemployment. Stickiness of wages and prices means, in the policy context, that an entrenched inflation has considerable inertia and cutting the inflation rate involves a prolonged recession. The new school concedes that tight money in the past has caused recession, but this is because such policy changes have been unexpected. What is needed, they argue, is a fixed policy rule, possibly embodied in a constitutional amendment, that makes policy constant and predictable by forcing the Federal Reserve Board to expand the money supply at, say, 4 percent a year. This is fast enough to accommodate real output growth but not to allow inflation. A balanced-budget commitment would also be needed in order to back up the monetary rule. Such a change in the way policy is made could stop inflation without serious recession, they say.

It is clear that things have gone wrong in the 1970s and new ideas are needed. But I do think the new school has gone off on the wrong track. The first problem with the new business-cycle model is that it does not fit the facts at all well. The theory makes very tight and specific predictions about the relationships among economic variables, and even the empirical tests run by advocates of the theory have found these predictions rejected by the data.

The two biggest difficulties the theory has with the facts can be explained fairly simply. The first is called the persistence problem. A typical recession lasts a long time. Business was clearly depressed from 1958 to 1962 and from 1975 to 1977. From 1931 to 1941 there was excess unemployment. But the new theory

levels last year because the transition back to normal levels is costly. In practical terms, this is less convincing. There are adjustment costs, to be sure, but they are small. Employment and output in a typical firm or industry rise and fall very substantially from month to month in normal times, so why can they not be increased from year to year during a recovery?

More fundamentally, though, assuming that adjusting output and employment is costly gets you out of the frying pan and into the fire. The second major difficulty of the new theory comes about because it postulates that people's choices about how much to work or to produce are based only on wages or prices that are determined competitively in the marketplace. Their choices are never constrained by a shortage of jobs or customers.

However, the typical cycle is characterized by large changes in output and employment but by only small changes in wages and prices. In many industries the cyclical movement of prices is very hard to detect at all. This means that supply responses or elasticities must be very large indeed—big quantity changes result from small price changes. Yet from observing people or firms when prices or wages have changed for reasons unrelated to the business cycle, we do not find such large responses. Adding adjustment costs makes this problem even worse, because it says that the change in output or employment from a given price or wage change will be even smaller.

A third problem with the new theory is a conceptual one that was raised by Arthur Okun. He pointed out that the new models emphasize the rationality of

behavior *despite which* there is a business cycle. The cycle occurs because of errors of expectation, but there is almost no analysis of the source of these errors or how they are eliminated. Okun thought the theory should explain in detail what people know, when they know it, and how they find it out.

Dealing With the Criticisms

Finally I turn to the new theorists' criticisms of the mainstream model. I agree with some of them. It is correct to say that the Phillips curve specification of the determinants of wage and price inflation collapsed in the 1970s and proved an unreliable guide to policy. The idea that the private economy alters its own behavior depending upon the way in which monetary and fiscal policy are made is an important one that had been largely ignored. It suggests that a resolute anti-inflation policy might work with less unemployment cost than is suggested by the past experience with haphazard anti-inflation policy.

The critics are also correct in asserting that simply assuming price or wage stickiness is not enough; one must understand why.

But to say that wage and price stickiness is not well understood does not mean that such behavior does not exist. The relentless upward movement of money wages during the mid-1970s in the face of a deep recession demonstrates the lack of wage responsiveness to excess unemployment and job rationing. The collapse of the simple Phillips curve model of wage and price behavior convinced Lucas and Sargent that a model based on perfect markets was appropriate. It convinced others to ask how the OPEC oil cartel, the worldwide shift in food prices, the slowdown in productivity growth, and the decline in the dollar have affected inflation. Lucas and Sargent ignore all these major events, claiming that excessive monetary expansion by an out-of-control Federal Reserve Board is the only cause of inflation.

On the theoretical side, there has also been some progress in understanding why wages and some prices fail to respond to short-run market imbalances. Farm prices do rise or fall depending upon supply and demand. But wages respond more to increases in the cost of living than to surpluses or shortages of labor. Recent approaches to understanding this pattern have stressed the differences between the markets for farm products and for labor. Most jobs last several years and employers treat their employees according to rules of fairness, responding perhaps to long-run changes in the economic climate but not to short-run conditions. The way to lessen the inconsistency in the mainstream view may be to improve the analysis of individual decision-making.

It is claimed that the assumptions about the formation of expectations that are made in the mainstream macro models are arbitrary and should be

replaced with the assumption of rational expectations. This is tricky. How much rationality is appropriate in economic models? The proponents of rational expectations claim that their approach is merely an extension into the case of uncertainty of the usual assumption that people act in their own interest, but that is not true. They assume that people have an intuitive grasp of the way the whole economy works. They look at and use information on economy-wide variables such as the money supply and the deficit and they know how changes in these variables affect their own decisions.

In an economy subject to shocks and disturbances the price level would have to change substantially for full employment to be maintained. But the private sector supposedly knows in each period the best estimate of the price level that would ensure full employment and then sets individual price decisions relative to this as a benchmark. It is hard to believe that most product or labor markets are this efficient. There just is not any evidence to support the strong rational expectations assumption. There is an old-fashioned idea that when business and consumers fear or expect a recession they cut back their spending and actually induce the recession they fear. This is a hard idea to model formally, but it may be correct anyway. Volatile expectations can be a cause of instability.

Lessons of the Seventies

The "policy ineffectiveness" theorem of the rational expectations models was startling and challenging. But it is no stronger than the assumptions made. In an economy where the market always yields the best available outcome, it is not surprising that stabilization policy can do no good, and will generally do harm. The theorem simply says that the market is so clever it can actually offset the harm done by at least the predictable part of stabilization policy. But no one advocates stabilization policy on the grounds that it can be "effectively" harmful. The idea is to offset instability in the private sector. Even with the troubled 1970s, it is still true that our economy is much, much more stable than it was before World War II. Stabilization policy can probably take credit for much of this.

The lesson of the 1970s is that we do not have an adequate theory of inflation nor do we have policies, or at least acceptable policies, to combine stable output growth with price stability. That is a major inadequacy, and it means there is plenty of room to change or extend the mainstream model, but it does not imply abandoning the successful part of that model. Using monetary and fiscal policy to keep the economy on an even keel is profoundly conservative politically, contrary to the usual impression. It allows the free enterprise system to work well. 

The Pipeline Connection: Issues for the Alliance

Europe and Russia both stand to gain from the gas pipeline deal. American attempts to stop it may be bringing the wrong results.

Ed. A. Hewett

IN THE MID-1960S Soviet oil prospectors in the Tiumen region of northwest Siberia failed in their assigned task to discover large oil fields, yet simultaneously succeeded beyond all expectations by discovering some of the largest gas fields in the world. As a result of their discoveries between 1965 and 1969, and subsequent exploratory activity, the confirmed natural gas reserves of the Tiumen region in northwest Siberia jumped from .4 trillion cubic meters (tcm) in 1965 to 27.0 tcm at the end of 1981. Total Soviet natural gas reserves today are 34 tcm, over 40 percent of known world gas reserves. The biggest field, Urengoi, one of the four supergiants discovered during the late 1960s, is almost as large in land mass as the state of Delaware (some 2,000 square miles) and has reserves of 6 tcm, more than all proved U.S. reserves.

As the magnitude of the discoveries became known outside the Soviet Union, Western firms began in the early 1970s to explore with Soviet organizations the possibility of large-scale agreements involving the development of Soviet capacity to produce and export natural gas using Western capital and technology. From the Soviet point of view these "gas-for-pipes" deals were quite appealing as a low-cost way to develop their energy sector, and their export capacity. Western firms saw the agreements as a relatively inexpensive way to diversify their sources of energy supplies.

One of the first, and most prominently discussed, agreements of this type was the North Star project, for which the main Western negotiator was Tenneco. This project was to involve the Urengoi field, from which approximately 20 billion cubic meters (bcm) of gas per year would be shipped to Murmansk, then liquified and transported by LNG tanker to the east coast of the United States. The agreement eventually fell through, in large part because of the reluctance of the U.S. government to contemplate loans and guarantees in the magnitudes implied by the deal (\$7 billion). A subsequent American-Russian-Japanese venture also ran afoul of financial constraints, as well

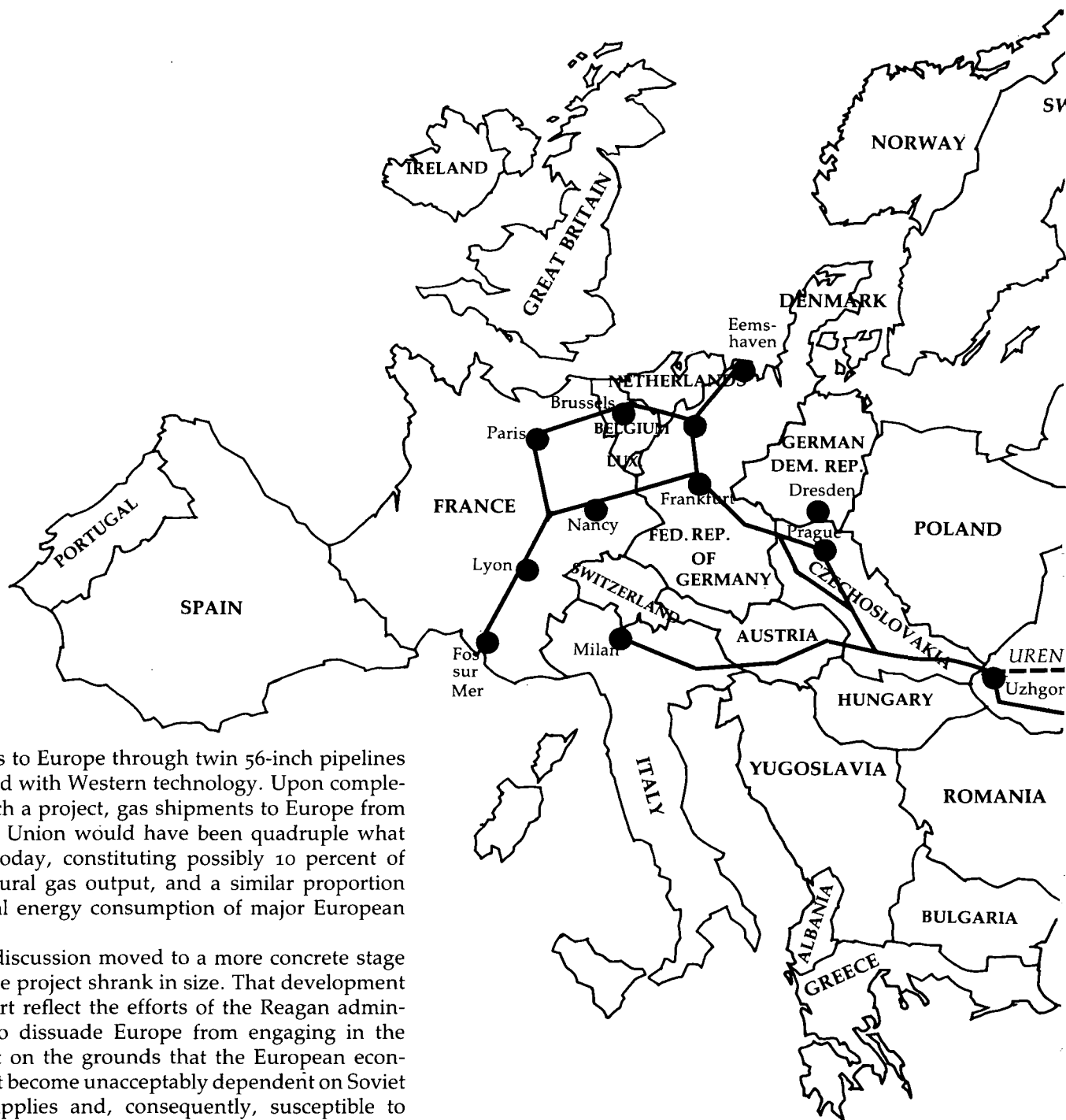
as the political strains accompanying increasing tensions in Soviet-American relations in the late 1970s.

European countries have concluded several gas-for-pipes agreements with the USSR since the late 1960s—the first was between Austria and the Soviet Union in 1968—and today the Soviets are exporting to Europe 27 bcm of natural gas, part of which is in repayment for loans used to develop their export capacity. That figure represents 6 percent of Russia's natural gas output, and 45 percent of its natural gas exports.

In the later part of the 1970s European governments and enterprises showed increasing interest in large new gas agreements, spurred in part by concerns over a potential energy shortage and a consequent need to diversify sources of energy, but also inspired by the potentially large equipment contracts involved in such a deal. Soviet planners had equally compelling reasons for contemplating such an agreement. Difficulties in the oil industry were forcing planners to place a higher priority on natural gas development, both for domestic use and for export, and there was a natural desire to use Western capital and technology to minimize the cost to the Soviet economy of developing the industry.

By 1980–81 Soviet economic problems (particularly in the agricultural sector), the economic fallout from Poland, difficulties in the remainder of Eastern Europe, and the continuing deterioration in performance of the Soviet oil industry—all apparently heightened the priority Russian planners attached to signing gas-for-pipes agreements with Western Europe. In addition, there were potential political benefits associated with successfully concluding a large economic agreement with Europe in open defiance of the increasingly vocal opposition of the U.S. government.

Preliminary discussions with West European firms and governments were, to judge from press reports, on a grandiose scale, involving \$10–\$15 billion of European capital to develop hitherto untouched gas fields on the Yamal Peninsula, which would then be dedicated solely to the export of up to 60–75 bcm per

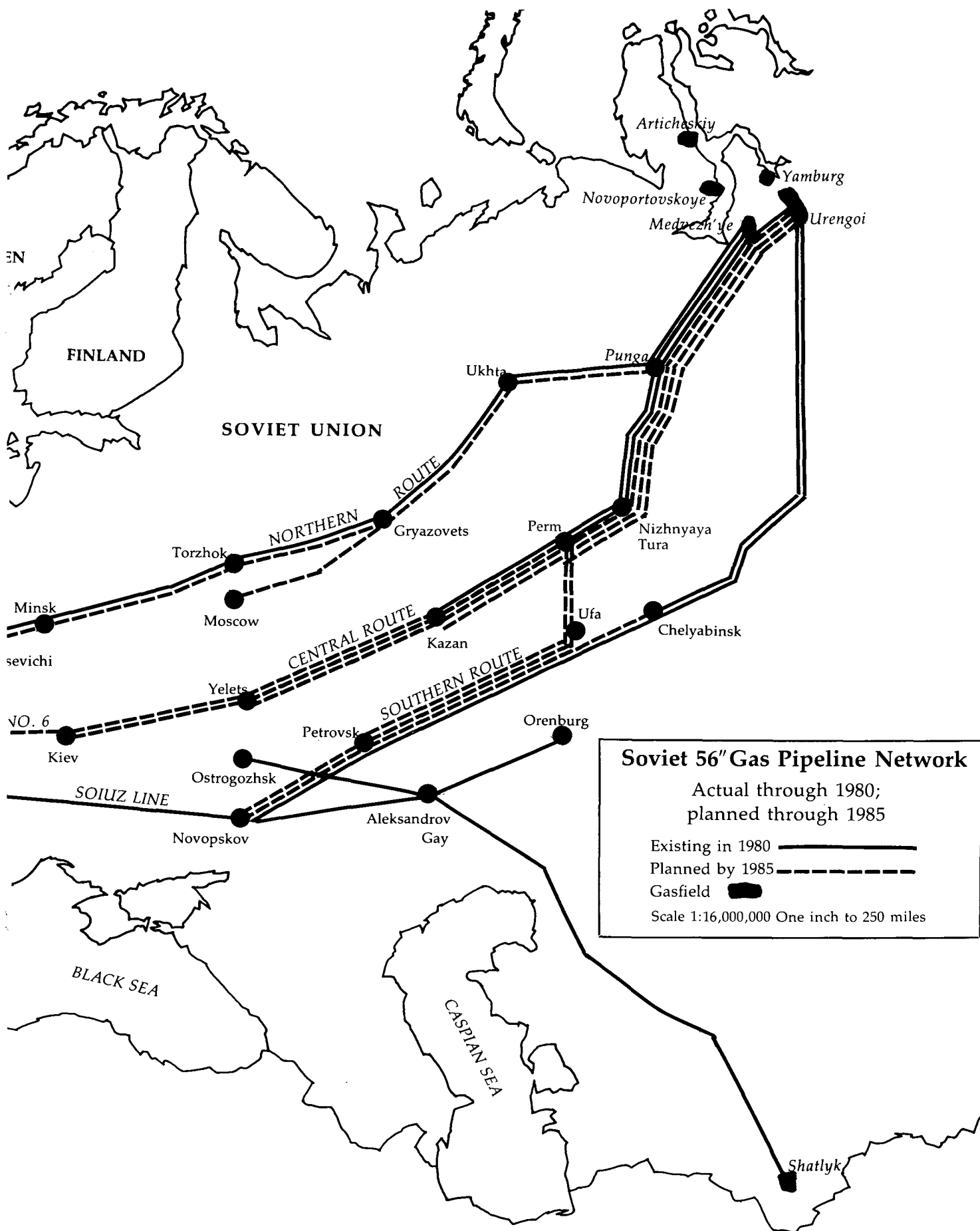


year of gas to Europe through twin 56-inch pipelines constructed with Western technology. Upon completion of such a project, gas shipments to Europe from the Soviet Union would have been quadruple what they are today, constituting possibly 10 percent of Soviet natural gas output, and a similar proportion of the total energy consumption of major European countries.

As the discussion moved to a more concrete stage in 1981, the project shrank in size. That development may in part reflect the efforts of the Reagan administration to dissuade Europe from engaging in the agreement on the grounds that the European economy might become unacceptably dependent on Soviet energy supplies and, consequently, susceptible to Soviet blackmail. But a probably more important influence on the course of the negotiations was downward revisions by energy specialists and European leaders of their likely future energy needs (reflecting both energy conservation achievements and falling GNP growth rates) and, therefore, their needs for Soviet gas.

This gas-for-pipes deal is still being negotiated, but the major pieces are in place. And even when all the initial high hopes and hyperbole are stripped away, it is a huge and complex deal.

In the first place, it is composed of not one, but



many bilateral agreements, which Moscow has, characteristically, negotiated with skill and toughness. There are bilateral agreements between the Soviet government and various West European governments on official credit lines which can be used to purchase equipment manufactured in each country. The official and private credit lines offered to the Soviets may have totaled \$10–\$15 billion at their peak—hence the press stories that the pipeline cost would fall in that range—but it now appears that they will use approximately \$5 billion to construct the line (to the considerable disappointment of several governments, particularly the Dutch).

There are contracts on equipment and pipeline purchases with various European and Japanese firms, some of which are financed through the official credit packages, and some of which are financed by suppliers' credits, backed by private banks.

Finally, there are contracts on the sale of the gas, the price agreements being led by the USSR-Ruhr gas contract concluded in the fall of 1981. Successful negotiations with Germany and France have committed the Soviets to raising natural gas exports from current levels by 18.5 bcm of gas gradually from 1984 to 1987. Accords with other European countries in the next year may almost double that figure, so that by 1986 or 1987 gas deliveries to Western Europe could be 35 bcm higher than they are now, making total Soviet gas exports to Western Europe approximately 60 bcm.

Construction of Urengoi No. 6

To accommodate that increment, the Soviets have commenced construction of a 4,500-kilometer 56-inch pipeline from the Urengoi field to the western border of the USSR, and Czechoslovakia and Hungary are both adding transit capacity sufficient in total to ship the gas on to Europe. The approximate course of the line, which I will call "Urengoi No. 6," is shown on the accompanying map as a broken line moving along the rapidly growing central route out of Urengoi. Five other lines, all dedicated to domestic users in European Russia, are under construction and scheduled for completion by 1985.

The 15,000 kilometers of these five lines and Urengoi No. 6 add up to a 20,000-kilometer pipeline expansion program—certainly the most ambitious such program in the world, in which the Soviets are installing 56-inch pipelines at double their previous rate. When all six lines are completed, Moscow intends to raise natural gas production from its 1980 level of 435 bcm to 630 bcm in 1985, which represents two-thirds of the total planned increment to Soviet energy supplies between 1981 and 1985.

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Earnings From the Gas Flow

Urengoi No. 6 will consist almost exclusively of turbines, compressors, pipes, and auxiliary equipment manufactured in, and purchased on credit from, the West. No official figures are available on the total hard-currency cost of the line, but the scanty information which is available suggests that imported equipment will cost around \$5 billion. The total cost of the Soviets will be much higher than that since they are providing all the labor, making the necessary infrastructural investments (towns, roads, and so on), and providing some of their own equipment.

The line is scheduled to open in 1984, and should be up to full flow by 1987 or 1988. At full capacity it will ship approximately 30 bcm, and since Soviet contracts could total somewhat more than that, there is apparently a plan to use some excess capacity in the remainder of the export system to meet the other orders. If additional exports are 35 bcm per year by 1987 (and if the floor price in the Ruhr gas contract is an accurate guide), then in the prices of that year the Soviets will be earning at least \$6.5 billion just from that new gas flow. If the old gas contracts for 27 bcm are rewritten at the new price, total earnings from gas in 1987 will be \$11 billion, up from \$3 billion in 1981.

That rise of \$8 billion, although large, will probably not be nearly large enough to forestall a substantial decline in Moscow's hard currency earnings from total energy exports over the next few years. In 1981, in addition to hard currency earnings of \$3 billion from natural gas exports, the Soviets earned \$14 billion from other energy exports (virtually all oil). The total energy earnings, \$17 billion, constituted 70 percent of all Russian hard currency trade receipts. It is quite likely that by 1987 Moscow will be able to export no petroleum whatsoever for hard currency, as increasing demand for petroleum at home eats into a stagnant, and probably a falling, level of oil output. Therefore by 1987, the \$11 billion in natural gas earnings could constitute total energy earnings, down considerably from 1981's \$17 billion, even before adjustment is made for the inflation which occurs between now and then.

Furthermore, not all of the projected \$11 billion in earnings from natural gas will be available for imports, since a significant portion will be required to repay principal and interest on debts accumulated in the course of expanding the gas distribution network. From Urengoi No. 6 alone the Soviet Union will acquire \$5 billion in debts that it will have to repay over the 1985–94 period.

In addition, there is good reason to expect that much of the machinery and equipment needed for the other five domestic lines will have to be imported, because Soviet industry is ill-equipped to meet in a very short period of time the demands for large

quantities of high-quality pipe, compressors, and turbines.

Until recently the Soviets have not produced 56-inch pipe of sufficient quality to withstand the pressures at which Urengoi No. 6 and the other five new pipelines will be operating. They have now designed their own multilayered pipe which is apparently up to Western standards, but are encountering difficulties (common in their economic system) in inducing Soviet enterprises to produce the new pipe. Consequently, for Urengoi No. 6, and for the other lines already under construction, they are using European and Japanese pipe. For the entire 20,000-kilometer expansion program 14 million tons of pipe may be needed; with luck, Soviet factories will produce four million tons of that. The remainder will have to be imported (three million tons for Urengoi No. 6, the rest for some of the other five pipelines) at a cost of approximately \$6.5 billion.

Soviet-made compressors and turbines present possibly even more intractable problems. The large (25-megawatt) compressors most suitable for 56-inch lines are still in an experimental stage in the Soviet Union, although plans call for beginning serial production by next year. A larger number of smaller units of Russian design can be used on these pipelines, but they are far less reliable than Western units, and are much more expensive to install and operate. The third option is to import the units from the West, which is what has been done on Urengoi No. 6.

For the other five lines, it is not clear what the Soviets will do. They obviously intend to rely heavily on their own equipment, but their plans in this regard seem hopelessly optimistic. It is therefore likely that in addition to Urengoi No. 6, they will be shopping in the next few years for a substantial number of Western turbines and compressors, which at least some European firms and governments will probably be quite willing to sell (and to finance).

If Moscow somehow can arrange financing and purchase the turbines and pipe needed to realize the plans to lay the five domestic lines, the loans incurred may add another \$10–15 billion to the Urengoi debt of \$5 billion. If, say, the total debt from the construction of all six pipelines is \$20 billion by 1985–86, of the \$11 billion in gross receipts earned from gas sales by 1987, approximately \$3.5 billion will have to go to principal and interest in the first years of the 10-year payback period, gradually falling close to the annual principal payment of \$2 billion by 1994.

For the various continental European countries there are several appealing aspects to the gas agreements.

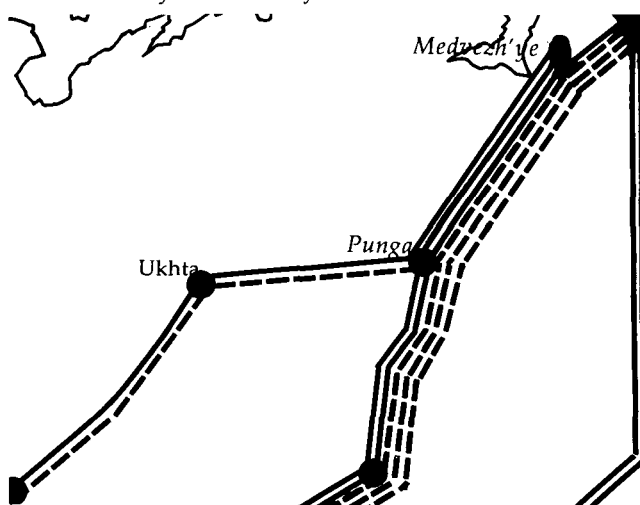
First, the \$20 billion figure would be primarily European exports spread over the next few years, which would represent a substantial amount of business focused in industries hit hard by the world economic crisis (particularly steel).

Second, it would allow Europe to diversify energy

imports, and to obtain a relatively inexpensive source of energy from the world's largest energy producer.

From these two points of view Europeans can justifiably argue that the gas-for-pipes deal simply reflects the rather compelling and fundamental comparative advantages of Soviet-European economic cooperation. But there is also a political argument for such an agreement which stems from the conviction of many in Europe that strong economic interdependence contributes to improved political relations, a very important point for countries in close proximity to the Soviet Union.

From the Soviet point of view, the gas pipeline represents a critical deal guaranteeing substantial hard currency earnings in the 1980s and 1990s, all the more important in light of increasing problems Russian leaders face in sustaining oil output and exports, and in controlling hard-currency food imports. And the agreements carry substantial political appeal to those leaders. They have always advocated close economic



cooperation, particularly intra-European economic cooperation, as good economics and good politics. But the Reagan administration gave them somewhat of a bonus by weighing in against the agreement rather loudly and late, so that the Soviets could lock up the agreement with public fanfare in open defiance of a United States obviously incapable of influencing its European allies in this important East-West venture.

For the United States, Urengoi No. 6 touches much different concerns, many of which are not shared with equal intensity in Europe. And with the change of administrations in Washington and the continued (and related) deterioration in U.S.-Soviet relations, American concerns have taken on a relatively high priority.

The Reagan administration sees in Urengoi No. 6 an agreement which will provide the Soviet Union with substantial hard currency earnings that will help ease the burden of expanded military spending, or at least ease the rate at which that burden is growing. There is also a general concern that a Europe dependent on the USSR for 5 percent of its total energy supplies will be a Europe ever so slightly more willing

to see the Soviet side in the great-power rivalry. In addition, the Reagan administration is bothered by the symbolism involved in the conclusion of a significant agreement between the Soviet Union and Europe when in the space of four years the Soviets invaded one country and crushed a grass-roots mass political movement in another.

A Failed Effort

President Reagan and his advisers felt these concerns deeply enough to try, against considerable odds, to stop the deal at a very late date, offering instead alternative plans for Europe to meet its forecasted energy needs in the 1980s (relying heavily on nuclear power and U.S. coal). The effort failed because it was begun too late, and Washington's alternative plans failed to address in any way compensation for the lost exports Europe would have suffered from cancelling the deal.

Further, Europeans assert (with considerable justification), before the U.S. government accuses Europeans of crass materialism in East-West relations, it should contemplate the rationale behind American efforts to expand grain sales to the Russians while simultaneously attempting to stop European sales of machinery and equipment for gas pipelines.

Finally, the Europeans feel the Reagan administration overestimates considerably both their vulnerability to a cutoff in Soviet gas supplies, and the willingness of Soviet leaders to tamper with their major source of hard currency earnings.

The disagreement between the United States and its allies took a new and nasty turn when on June 18, a week after the Versailles summit, President Reagan extended the embargo on exports of oil and gas equipment to foreign subsidiaries of American firms and foreign firms operating under U.S. licenses. No hint of the new sanctions was given at Versailles, and one week after the new sanctions were announced, Secretary of State Haig resigned, apparently in part because of this decision. European governments, at first totally surprised at the decision, are moving to oppose the embargo attempt. Washington is threatening to impose sanctions against European firms which violate the embargo, including possible fines, and restrictions on their right to conduct business in the United States. Other issues—steel and high interest rates—add to the tensions.

It is too early to know where this may lead, and what it will ultimately mean for the pipeline. The U.S. has no monopoly over technology for the pipeline. The most critical and technically sophisticated parts—the turbine rotors and blades—will soon be produced by the French firm Alsthom Atlantique under GE license. Although it was not the original intention, Alsthom could expand its productive capacity and produce sufficient rotors for all 125 turbines

scheduled for shipment to the USSR by German, Italian, and English firms. In that case Europe could on its own meet the original contracts in defiance of American wishes.

The question which remains to be answered is if Alsthom, and more importantly its owner—the French government—will choose to step in and fill this gap created by the embargo. So far the French have only ordered Alsthom to fill an existing order for 40 rotors and blades. If they go no further, then the Soviets and the other European governments will have a much more complicated, though hardly insoluble, problem to resolve of renegotiating the equipment contracts for equipment which can be produced in Europe. My judgment is that this pipeline will be built, and most likely it will start delivering gas very close to when it is supposed to in 1984.

In a larger sense this argument with Europe is over how East-West trade can be used, and how the United States can influence East-West trade, to shape Soviet behavior. There is a very strong disagreement on the first point between European governments who are generally skeptical of the possibility that manipulating trade flows will influence Soviet leaders, and the Reagan administration, which is convinced it can make such a link work. On the second point it is increasingly clear that the U.S. is a decidedly junior partner in East-West relations, with a degree of influence approximately commensurate with that role. The June 18 sanctions highlight that relatively modest influence. Having failed in its effort to influence Europe, Washington has resorted to the threat of sanctions, something usually reserved for enemies, not allies.

A Question of Purpose

Nevertheless, the United States still wields influence through continuing leadership in many high-technology industries and through its political and military prominence in the world. And if that influence is used skillfully, treating European allies as partners with concerns which understandably diverge from American concerns, then Washington could maintain some influence over East-West relations.

But then the question will be: For what purpose will that influence will be used? Here a much more serious national discussion will be required, in order to forge a consensus in the United States on a consistent and long-term policy towards the Soviet Union that is durable enough to survive changes in administrations and in the parties that dominate them. If such a consensus cannot be achieved, then the U.S. risks a continuation of unpredictable and broad swings in its policy toward the Soviet Union, which will not only make bilateral relations worse, but also create considerable tensions in the Atlantic Alliance itself.

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Interview: A. Doak Barnett

For anyone studying the China of the past three decades, the 18 books A. Doak Barnett has written, co-authored, or edited have been must reading. Ranging from a report of pre-revolution conditions (China on the Eve of Communist Takeover, 1963) through political analyses (Cadres, Bureaucracy, and Political Power in Communist China, 1967) to economic studies (China's Economy in Global Perspective, 1981), they have all borne the mark of a scholar of uncommon experience and insight.

Barnett in fact has had an uncommon life. He was born and raised in Shanghai, earned a B.A. and M.A. at Yale, served in the Pacific in World War II, worked as a journalist in the late 1940s, held a variety of governmental, scholarly, and journalistic positions in the 1950s, taught at Columbia through most of the 1960s, and joined the Brookings Institution as a senior fellow in 1969. Here he has concen-

trated on China and U.S. policy in Asia and authored five books and two staff papers. In the last of these, U.S. Arms Sales: The China-Taiwan Tangle, (July 1982), he argued for restraint, but not a cutoff, in arms sales to Taiwan and caution in sales to China before a sound political relationship has been established.

Long active in organizations aimed at improving American-Chinese relations, Barnett has visited China numerous times. During his most recent trip, in May and June, he attended a Beijing conference on Chinese-American Perspectives of International Economic Issues jointly sponsored by Brookings and the Chinese Academy of Social Sciences.

Barnett joined the faculty of the Johns Hopkins School of Advanced International Studies (SAIS) in July. Before leaving Brookings, he was interviewed by the Review staff. Excerpts from the hour-long conversation:

You've been involved with, and have been observing, two major actors, China and the United States, in a very revolutionary era. What do you see as the impact of the respective developments in each country in the last part of the 20th century?

Well, I'd look back first, and I would argue that the state of relations between the United States and China has really set the framework for the overall situation in East Asia, and that has been true for decades. The entire pattern of relationships from the 1940s up until détente between ourselves and the Chinese in the early 1970s revolves around the basic fact of U.S.-China hostility. I think the framework for international relations on the whole in that area has changed very profoundly as a result of the improvement that has taken place in our relations, and I think this will continue to be true—that our ability to develop and maintain and consolidate a reasonable relationship with China will have a fundamental effect on the entire situation, certainly in East Asia, which is becoming an increasingly important part of the world economically. It's not something we can take for granted.

The critical issue, as everyone knows, is Taiwan, which so far we've been able to manage during this period of U.S.-China détente in a way that allowed us to go ahead building a relationship, but there's no guarantee that we'll be able to that in the future. There could be a retrogression in our relations.

What have been the most rewarding aspects of your years of personal involvement in China?

The most interesting period of my life in China was in 1947, '48, and '49, when I was a half-time correspondent for the *Chicago Daily News* and half-time on a fellowship for the Institute of Current World Affairs. In those three years I was able to travel all over China, to virtually every province, and I wrote

about it and eventually published a book called *China on the Eve of Communist Takeover*. I spent a summer in a Chinese village studying village politics, met virtually every old-style Chinese warlord, got the last plane to Peking before the Communist takeover, and watched the takeover. So I think that experience over those three years gave me a sense of the country which just growing up in one place did not and a sort of baseline for judging China, looking at China, analyzing changes in China, which has been invaluable to me ever since.

I suppose I would say that the most satisfying involvement since then has been being involved in the efforts to try to open up relations with China, and being involved in almost all the private efforts to establish contact with China, which really began about the mid-1960s. That's when we set up several organizations that still exist and really got into business once the opening took place.

What advantages would you say you've gained from living in the two cultures most of your life?

I think there are advantages and disadvantages. One advantage is that I really do feel comfortable in China. It's not a strange place to me. I feel comfortable with Chinese. I think, having known and dealt with Chinese for 60 years, or close to it, that I may have certain sensitivities to what they're communicating to people that the less experienced don't. It's also a disadvantage, though, because I keep being struck by the fact that people going to China with a fresh eye, if you will, are startled by things that perhaps one should be startled by that I am not.

Such as?

Simply the impact China makes on one. I forget that China is so crowded, for example. It's always been crowded, so I'm not concerned. I think people going there for the first time are just overwhelmed

***"I got the impression of a society
that is very dramatically depoliticized."***

by the numbers of people, which is a pretty basic fact about China.

It's a very complicated question whether it's a plus or a minus, you know. I'm struck today, I was on this recent trip, by improvements I see in Chinese standards of living. I think a lot of people going for the first time are struck by how poor China still is. And both of these are correct.

During your years at Brookings half a dozen of your books have been printed. Could you reflect a bit on your years here?

I think I can honestly say that Brookings was exactly where I wanted to be during this period, and that I would not have been able to do the research and writing I've done here any other place, or at least at any other place that would appeal to me. And this was a stage in my life in which that was my priority, desire, and objective. I had spent the previous nine years teaching, with a very large number of graduate students that I was responsible for, and trying to write at the same time.

You're moving on to a new position at SAIS. What will be your goals there?

Well, I'm going back to teaching, and I look forward to it. It'll be different from Columbia, where I was mainly working with people who were trying to get a PhD and who were therefore investing five, six, seven years in that. The School of Advanced International Studies concentrates primarily on people getting MAs on the road to public careers, in government, business, journalism, and I think that in the China field that's probably what is needed.

As one of the original so-called China-watchers, how do you see changes in the art and craft of analyzing and interpreting what goes on in China?

There's no doubt that there's much more sophistication. Many more people know the language, many more people have contact with the society, more people see it, much more information is available, so that people are more sophisticated, more qualified in many respects and have much greater opportunities to learn about China than they did. But that somehow doesn't seem to resolve the problem of how you make judgments about China. That's the crucial thing.

What do you compare China to? To some image of what you think it ought to be? To what it was 50 years ago? To what it was ten years ago? To what it was the year before last? To what Japan is? In making judgments about a country like China you are implicitly comparing it with something. And that is what is difficult—to know what to compare it to—and what I think some of these people have a problem achieving a balance in. Right at the moment I think people are comparing it to what they think it ought

to be, not in China's own terms, but in Western terms. I mean, I think there was a hope there would be real democratic movement in China, and it has not developed, and this has led some to be preoccupied with the repressive aspects of the regime, but the fact is that they've always been there and I would say that in many respects they may be less now than they were.

Could you comment on the recurring theme of unrealistic expectations that has characterized Western relations with China over the years?

That's a terribly important subject, I think, because we in the West, and particularly in the United States, keep going through cycles, or swings of the pendulum, from unrealistic euphoria about China to a feeling of disillusionment because it doesn't live up to our unrealistic expectations. Even in the past decade we've gone back and forth on this, and we're in another phase, I would say, at the moment, in which the writing about China is "revisionist," designed to disabuse people of the utopian views of an egalitarian society; what is being written now, it seems to me, is a swing to the other extreme, portraying China as a very repressive, totalitarian society. China has always had totalitarian features. It is a totalitarian society.

But if I were to make a comment about my impressions on this trip, it is that almost everything that's being said by those who are stressing the repressive nature of the regime is a very unbalanced picture. I got the impression of a society that, compared to the last time I was there a little over two years ago, is more relaxed, that is very dramatically depoliticized. This doesn't come through in the writing I see these days. There has been a tightening up of the freedom allowed the intellectuals, and yet the intellectuals have a lot more freedom still than they did just a few years ago. There has been a clamp-down on anything you could call open dissidence, and I think that's what some American newsmen have reacted very strongly against. They unrealistically hoped, I think, at the time of Democracy Wall in '78 that somehow the leadership was going to allow a real democratic movement.

I'm not sure any kind of leadership facing the kinds of problems the Chinese leadership does in having to rule a billion people is going to allow a real democratic movement to develop.

Did you have high-level contacts during this trip which gave you any insights into the Taiwan issue?

I met the key people in the government at the working level dealing with U.S.-China relations, and in every case Taiwan was the issue that was in the forefront of their minds.

I think it is still very uncertain how we're going to come out on the Taiwan issue. There are some Chinese, I believe, who recognize that President Reagan has really come a long way from the positions he had in 1980, and I think some of them, at least privately, would probably recognize that China has to show a little bit of flexibility at this point, if we're going to avoid an impasse which is going to result in a downgrading of diplomatic relations. But the top leadership has committed itself pretty strongly to this position where the United States ought to be willing to set a cut-off date on arms sales to Taiwan, and I don't think there's any reason to believe that President Reagan, or probably any other person who was president, would be willing to consider that at the present time.

So the question is whether a formula can be found, which I think at this point would involve a certain degree of increased flexibility on the Chinese side. I think Reagan has, in a sense, made his compromise. In the conversations I had there were no clear indications that the Chinese are going to be willing to modify their positions, but there's still hope that some sort of a compromise solution could be worked out. I wouldn't exclude the possibility that it could, but by the time I left China there was certainly no clear indication that it was on the horizon. And there's still a real possibility that the impasse will continue and that it will lead ultimately to a downgrading of diplomatic relations. It's still a very uncertain situation.

Suppose there was a declaration of independence now by the people of Taiwan, whether they're led by the Kuomintang or not. Is this the most dangerous scenario you could envision?

It would certainly be dangerous in the sense that it would create a crisis in U.S.-China relations which would create a sense of crisis throughout the area and would make Taiwan feel insecure, among other things. I think there's a very low possibility of that happening, because I think both the Mainlander leadership on Taiwan and independence-minded Taiwanese both recognize that going ahead and declaring independence would make their situation more complicated. So I do not think there's much possibility of that.

The three crucial areas covered in your most recent staff paper—economic, political, and military—are interrelated. Can you foresee a time when the military aspect will be of minor importance?

I think that for the foreseeable future the strategic and military elements in the situation are going to be important, but that doesn't necessarily mean that the present kind of triangular relationship is permanent. My own feeling is that China is moving somewhat away from the posture it has had the last few years, which has been a very simple one—that the Soviet Union is *the* threat in the world and that everybody else ought to join up in the united front against it. Slowly and cautiously they are making clear that they're prepared, if the Soviets show some flexibility,

to move to improve state-to-state relations. At the same time, they are distancing themselves from us somewhat, compared to a couple of years ago.

What's the import of all that on future U.S. policy toward China?

I think it's terribly important that we find some way to manage the Taiwan problem so we can both—Peking and Washington—live with it while there is gradual evolution in the situation; there's not going to be any quick solution to it. If we can do that, I think the critical thing is to consolidate what we have begun to develop—a very significant economic relationship—and to keep widening our academic and intellectual ties, all of which help to reinforce the political bilateral relationship. We should *not* think primarily in terms of the potential for a military relationship. We should stress the political and economic aspects of

our relationship. All of this requires us to somehow prevent the Taiwan issue from derailing the process.

I think that both sides should be able to do this, and we have enough common interests for both sides to do it. But part of it is restoring confidence after a period in which the Chinese, I think, starting with 1980, began to lose confidence in the basic direction of U.S. policy, and for a period of time felt the United States might really be going in the direction of a two-China policy—which we had assured them we would not. I think probably, now, they believe we are not moving in that direction, but only after we've reached this point of crisis on the political-diplomatic level. Now we've got to reverse that and build confidence again.

If we can get over the hump of the present problem I think it would be highly desirable for there to be exchanges of visits between President Reagan and Premier Zhao Ziyang. If we can get through this present period without a setback, that's possible, and very desirable. ⑥

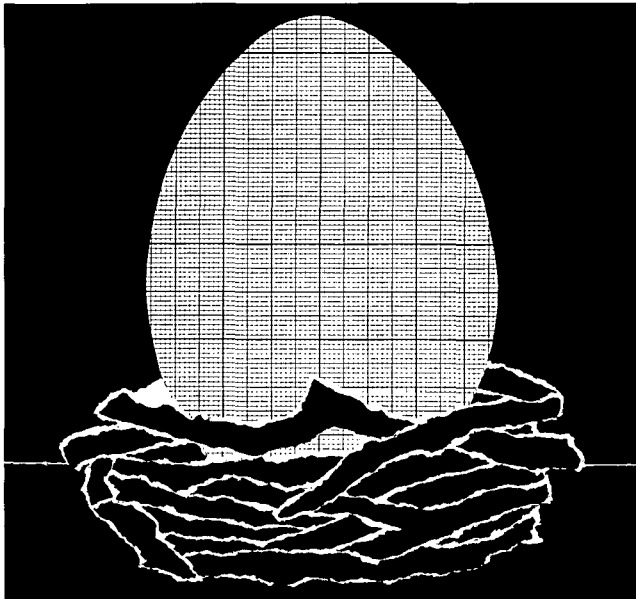


Tough Times for Pension Plans

Private pension plans now make 20 percent of retirement benefit payments to older Americans and control more than \$400 billion in assets. They affect the income security of millions of workers and their families, influence the employment and mobility of half the private work force, constitute a significant claim on corporate assets, and play an important role in financial markets.

But private pension plans face an uncertain future, according to Alicia H. Munnell in a Brookings Institution study released in May. Despite tax concessions that will cost the Treasury \$30 billion in 1982, private plans still fall short of covering most workers. Some plans are under serious financial pressure as a result of funding requirements imposed by the Employee Retirement Income Security Act of 1974 (ERISA). Many have experienced a decade of poor returns on their assets and rising liabilities caused by changes in the formula used to calculate retirement benefits. Their costs will increase further if they begin to adjust their benefit payouts to compensate for inflation.

Munnell, a vice president of the Federal Reserve Bank of Boston, conducted the study as a member of Brookings associated staff. In *The Economics of Private Pensions*, she provides the first comprehensive economic analysis of private pension plans and their relation to social security, the tax system, individual saving, and financial markets. She also considers the future of private plans in an inflationary economy and evaluates proposals for improvement, such as partial indexing of benefits.



Private pension coverage is concentrated among higher-paid workers in unionized industries; most employees in the construction, trade, finance, and service industries are not covered. As a result of the

maturation of the pension system and favorable vesting provisions under ERISA, more retired people will be eligible for private pensions in the future. Even so, probably no more than half of the elderly in future generations will receive private pension benefits. Nor is it likely that IRAs will fill the coverage gap.

In short, while favorable tax provisions have encouraged the growth of private pension plans, the provisions have not achieved the goal of broad-based benefit protection. A substantial proportion of the elderly will continue to be forced to rely exclusively on social security in their retirement years.

The Economics of Private Pensions, by Alicia H. Munnell. Published May 1982. 240 pages. \$8.95 paper, \$22.95 cloth.

Munnell points out that while ERISA corrected serious weaknesses and inequities in private pension plans, it increased the legal responsibility of corporations to provide benefits and required that the benefits be backed by corporate assets as well as by pension funds if a plan is terminated. The law has thus had a threefold impact on corporate finance.

First, ERISA's participation and vesting standards have created pension commitments that would not have existed otherwise. Second, the funding requirements have increased the size of corporate pension contributions. Third, the Pension Benefit Guaranty Corporation's authority to assess companies for up to 30 percent of their net worth to cover pension benefits means that a sizable chunk of corporate assets is now committed to pension plans.

If it appears that a pension plan's unfunded liability is about to exceed 30 percent of its net worth, the PBGC can terminate the plan and seize assets equal to 30 percent of the firm's net worth to pay the beneficiaries. Thus far the PBGC has not officially terminated any plan—even substantially underfunded ones such as those of Chrysler, International Harvester, and Braniff Airways. But Munnell's research shows that Chrysler's unfunded pension liability of about \$1.275 billion could impose a liability of nearly \$1 billion on the PBGC; for International Harvester and Braniff, the respective numbers are \$1.079 billion and \$864 million, and \$139 million and \$116 million. The PBGC faces a potential liability of at least \$4 billion, raising questions about the viability of federal pension insurance in its present form.

How the \$400 billion held in private pension plans is invested depends on whether the assets are held by life insurance companies or in trust funds administered by banks. Banks tend to concentrate their investment of pension funds in common stocks, while

the assets of plans managed by insurers are invested primarily in bonds and mortgages.

These portfolios have yielded very different results. Between 1960 and 1980, pension trusts realized total returns as low as -21.3 percent and as high as 24.4 percent, while life insurance companies achieved consistently positive returns in which capital gains and losses played a minor role. Average annual returns during the 20 years were 5.2 percent for pension trusts and 5.6 percent for insurance firms.

Munnell says that pension trusts could improve their mediocre performance by increasing their investment in mortgages, which would balance the trusts' portfolios and also satisfy the demand for socially oriented investments. Moreover, the yield on mortgages relative to other investments probably will increase as thrift institutions—the traditional suppliers of mortgage funds—come under increasing pressure.

Post-retirement cost-of-living adjustments under private plans are still rare and usually fail to compensate fully for price increases. Although full in-

dexing of private pensions would be impossible without major innovations, Munnell contends that partial indexing is both desirable and feasible. She recommends "performance" indexing, which would require that firms' liabilities for benefit payments be valued at a statutory real rate of return—say, 2 or 3 percent—and that any returns beyond this amount be used for indexing pensions. This approach would not produce fully indexed benefits, but it would ensure that plan sponsors provide at least as much inflation protection as plan participants could achieve on their own. And it would impose no additional costs on sponsors beyond those they would have borne in a noninflationary environment.

According to Munnell, "Either private plans must improve their benefits or political pressure will develop for government action." Such action might take the form of mandatory cost-of-living adjustments, or perhaps a mandatory supplementary pension system with universal coverage. "Without indexing," she concludes, "the role of private pensions . . . can be expected to decline in the future."

An American Dilemma: The Military Racial Mix

In contrast to the racial proportionality that characterized American armed forces throughout most of U.S. history, the 410,000 blacks under arms today represent about 20 percent of all American military personnel, a proportion far greater than the 11 or 12 percent of the total population that is black. Blacks are most heavily concentrated in the ground combat forces: one of every three Army GIs is black, as is one of every five enlisted marines.

The United States should not ignore the complex and controversial issues to which this substantial shift in the racial composition of the armed forces has given rise, say the authors of a Brookings study released in June. To do so, they say, is to run "the risk that national security decisions will be made at the expense of the social good and social decisions at the expense of national security, with a good chance that both will suffer."

The authors of the 190-page study, *Blacks and the Military*, are Martin Binkin, Brookings' specialist in defense manpower policy; Mark J. Eitelberg, senior scientist with the Human Resources Research Organization; Alvin J. Schexnider, associate dean of the School of Community and Public Affairs at Virginia Commonwealth University; and Marvin M. Smith, a Brookings Economic Studies research associate.

Public reactions to the changing racial makeup of the armed forces have been mixed, they report. Many Americans welcome the growth of black participation in military service because it can give young blacks

educational, social, and financial opportunities not otherwise available to them. High rates of unemployment and the relatively low civilian earnings potential of black youths make the armed forces particularly attractive to them: two of every five eligible young black males have volunteered for military service in recent years compared to one of every seven whites.

Other Americans view this trend as a mixed blessing. Some question the long-term value of military service to blacks, holding that they tend to be trained in skills that are of relatively little value in the civilian economy. While black males in the enlisted ranks are as likely as whites to hold white-collar jobs, they are more concentrated in clerical positions and less likely than whites to receive technical assignments. Among male enlisted personnel with blue-collar skills, whites are more likely to be trained as craftsmen, blacks as service and supply workers or in general military skills (including combat).

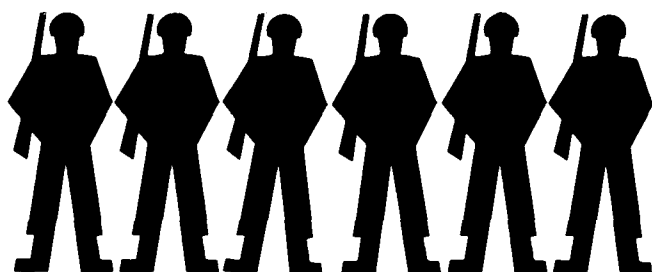
***Blacks and the Military*, by Martin Binkin and Mark J. Eitelberg with Alvin J. Schexnider and Marvin M. Smith. Published June 1982. 190 pages. \$7.95 paper, \$18.95 cloth.**

Some Americans believe that the opportunities military service affords blacks are outweighed by the imposition of an undue share of the burden of defense on a segment of the population that has not enjoyed a fair share of society's benefits. From this perspective,

say the authors, the possibility that blacks will die in disproportionate numbers—at least in the initial stages of a conflict—is “immoral, unethical, or otherwise contrary to the precepts of democratic institutions.”

The authors’ analysis shows that if the United States becomes involved in another military conflict, the 20 percent casualty rate of blacks that provoked charges of racial genocide in the early stages of the Viet Nam War could appear small. If black casualties were simply proportional to the number of blacks in the Army’s enlisted ranks, one of every three Army combat deaths would be that of a black soldier. This estimate probably represents the lower bound; black casualties in the opening days of any military engagement are likely to be heavier than 33 percent in the Army, depending on the specific units engaged in combat. If, for example, the Army’s 2nd Infantry Division had to fight on the Korean peninsula, black soldiers probably would suffer 40 percent of the early casualties because of the racial mix in the division. The proportion could be larger, since blacks account for more than half the strength of some combat battalions.

Speculation anchored in racial stereotypes of an earlier era still surrounds the capabilities of black troops, their influence on unit performance, and how their participation affects foreign and domestic perceptions of American forces. The authors conclude that in individual performance, blacks should no longer have to prove themselves. Those serving in the armed forces perform at least as well as their white colleagues. They find, however, that substantial portions of black youths—especially high school dropouts—would not qualify for military service under present aptitude standards.



The authors emphasize that it is an open question whether the standards used for enlistment, job classification, and assignment are as valid as the adherence to them implies. “While in many cases,” they say, “present standards are based on years of experience and are products of extensive and rigorous research, in others they appear to be nothing more than legacies of the conscription era when there was virtually no pressure on the armed forces to justify their manning criteria.” The authors recommend that research be undertaken to define the relationship of test scores and educational attainment to job performance and to assess the costs and benefits of accepting and training people who cannot meet today’s standards.

As for group performance, Binkin and his colleagues find that while relations between blacks and whites in the armed forces compare favorably with race relations in American society as a whole, less than complete racial harmony has been attained. Since the armed forces have played down the effects of racial differences, however, the implications for group cohesion and performance of the substantial shift in the racial mix have gone virtually unresearched. The authors recommend that studies be made to determine the extent to which the racial composition of combat units affects their ability to fight.

Suspicion that black troops might be unwilling to carry out their assignments in certain domestic situations—a suggestion that is understandably reprehensible to many members of the black community—cannot be dismissed out of hand, the study says. As the British decision not to send Irish regiments into Northern Ireland during the 1970s suggests, it could be risky to deploy troops that share a racial or ethnic bond with an adversary.

Less serious anxiety surrounds foreign involvements. With the unlikely exception of an American intervention on the side of whites in a conflict against blacks (for example, to support the South African government), it is difficult to conceive of a situation in which black allegiance would be tested. What is certain is that adversaries will attempt to exploit racial divisiveness among U.S. troops.

Separate from these concerns is the possibility that fear of the social and military consequences of using black troops in certain contingencies could influence decisions about the use of military force. If that were to happen, the range of choices available to national leaders would be reduced and national security diminished.

Binkin and his colleagues believe these issues will persist or intensify over the rest of the decade as the number—and perhaps the technical abilities—of young Americans declines and the requirement for better, and probably more, military recruits increases. According to the authors, “Blacks will constitute an increasing proportion of the smaller supply pool and, by our economic reckoning, will find military service even more inviting than in the past. At the same time, the services will be under pressure from Congress and from the demands imposed by advancing technology to seek more youths with higher technical and mechanical aptitudes, who by present measuring sticks are more likely to be white.”

Manning the armed forces with a representative cross-section of American society would be no mean task. As long as the forces are maintained by voluntary means, it will prove difficult—even with large pay increases and more liberal benefits—to attract white middle class youths, particularly those who are college-bound. Peacetime conscription would make the task easier, but only if qualitative standards were raised enough to restrict the number of volunteers or

if the size of the armed forces were increased. A national service program in which most young Americans participated would either have to encourage white youths to choose military over civilian service or to assign everyone in accordance with representational quotas.

While important in their own right, these questions bring into sharper focus a much broader issue: the appropriate concept of military service in contemporary American society. This question involves more

than the racial factor, for it pits against one another the conflicting philosophies dedicated to protecting individual freedom of choice and to restoring a spirit of service as an important duty of the citizen. Binkin and his co-authors call for the appointment of a presidential commission to examine alternative concepts of service to the nation, both military and civilian, "that would contribute to the national security, economic, and social environments of the 1980s."

What's Ahead for the Cities?

American cities already suffering from severe urban decline will continue to lose people and jobs, and even those cities which are now growing fast will grow at a slower pace in the future, according to the authors of a new Brookings study, *Urban Decline and the Future of American Cities*.

To provide an empirical basis for current debates on urban policy, the authors—Katharine Bradbury, Anthony Downs, and Kenneth Small—catalogued the various theories about why urban decline occurs. Bradbury is a research economist with the Federal Reserve Bank of Boston. Downs is a senior fellow at Brookings. Small is a professor of economics at Princeton University. They tested the theories against data gathered from 1960 to 1975 on the 121 American cities that contained over 100,000 people in 1970 and were the largest cities in their respective metropolitan areas.

The authors conducted four substudies as part of their analysis. They reviewed the forces affecting urban growth and decline, analyzed the nature and causes of neighborhood decline and revitalization, developed a detailed simulation of possible policies to combat urban decline in a major metropolitan area (Cleveland, Ohio), and conducted a quantitative analysis of the effect of high energy prices.

A key finding of *Urban Decline* is that the diversity that has always been a hallmark of the United States is reflected in the condition of American cities. Decline is inevitable in some cities, but it is not universal. In fact, the 1970s witnessed large investments in office buildings and neighborhood revitalization. Out of the 121 cities analyzed in this study, 44 were growing in population from 1970 to 1975, 43 were stagnant (populations fell but the number of households rose because of falling average household size), and 32 were severely declining (they lost both population and households).

Severely declining cities are concentrated in the Northeast and Midwest regions, whereas fast-growing cities are found in the South and West. Statistically significant factors that lead to more growth in the South and West include a warmer climate, higher percentages of Hispanics (the fastest-growing popu-

lation group in the U.S.), and lower unemployment rates.

The South also has a double wage and income advantage for national firms. Real per capita incomes adjusted for both inflation and regional living-cost variations were lowest in the Northeast, even though nominal incomes are lowest in the South. Corporations can pay their workers lower nominal incomes in the South, but the workers actually get higher real adjusted purchasing power from those apparently lower incomes. Also, tax burdens are generally lower in the South than in the Northeast, although that factor was not statistically significant in the analysis.

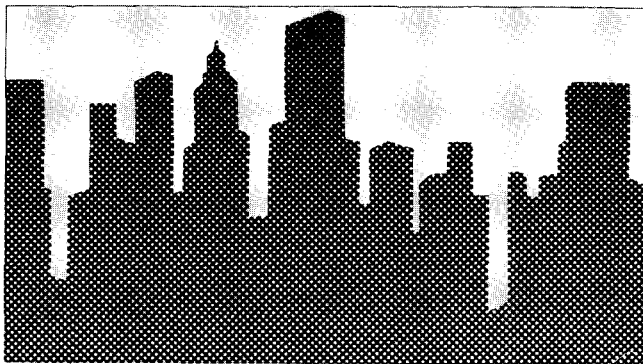
Bradbury, Downs and Small found that urban decline in most areas results from factors that have essentially upgraded a majority of metropolitan area residents, including most that moved to the suburbs and some that remained in large cities. Among these factors are rising real incomes, preferences for low-density living, massive new suburban housing construction, more widespread use of automotive vehicles, and the dispersal of jobs outside large cities.

Urban Decline and the Future of American Cities, by Katharine L. Bradbury, Anthony Downs, and Kenneth A. Small. Published August 1982. 309 pages. \$10.95 paper, \$26.95 cloth.

Other factors that generate slower urban growth generally are falling fertility rates and a sharp drop in farm-to-city migration. Contributing to the decline of specific urban neighborhoods are desires for socioeconomic segregation combined with exclusionary, suburban housing practices. Thus, in general, population and job declines in large cities have resulted not from the failure of past urban-related policies but from their success in benefiting the majority of urban-area residents. At the same time, however, these policies have loaded the social costs of those benefits disproportionately on certain areas and residents within the cities, especially upon poor households living in deteriorating inner-city neighborhoods.

Once a city has begun to lose population and jobs,

its decline often becomes self-reinforcing, because each loss creates conditions that encourage further losses. For example, the first households to move out of large cities are usually upper middle class ones with above-average incomes. Their departure reduces the per capita tax base within the city, raises per capita taxes on the remaining residents (since those who left paid above-average taxes), lowers the fraction of middle class children in public schools, and cuts the political power of such households in the city. These changes provide stronger incentives for more middle class households to leave: Their departure reinforces these changes and more such households leave.



Urban decline, then, is not a self-correcting process, but usually tends to get worse rather than better. The major self-correcting element consists of falling land prices (in relative terms) that encourage development in areas that are emptying out. But this factor has not yet become strong enough to reverse the process in most declining cities. That means market forces alone cannot cope with urban decline, at least not until after major deterioration has occurred within severely declining cities.

High energy costs will also not halt the spreading out and lowering of urban densities. Using more fuel-efficient cars is but one of many methods of dealing with energy costs that are more cost-effective than moving to cities. Higher real capital costs may simply slow urban sprawl by raising the prices of new suburban homes. Thus, further losses of population and jobs are probably irreversible in the near future in most severely declining cities, since the forces supporting continued decline are too strong and pervasive.

Some form of public policy response is appropriate. However, policies aimed at fully reversing the decline in severely declining cities will not work. Hence helping such cities adjust to lower levels of population and jobs will be a more effective policy than trying to restore their pasts. *Urban Decline* simulated five possible anti-decline policies in the Cleveland area. Although all five together did slow the city's projected future decline considerably, they did not halt further major losses in population or jobs. Moreover, the scale of the policies in the simulation was much larger than would be likely in actual application.

One result of the urban changes outlined in the book is that large numbers of the nation's poor have become concentrated in big cities. This has been caused not by voluntary choices by the poor or by cities, but by national trends in the economy and exclusionary housing policies in the suburbs. To expect large cities to finance their own activities in support of their disproportionately poor residents without major and increasing federal aid is to ignore this crucial fact. Cities cannot redistribute income among their own citizens because persons they tax heavily can move out. Only the federal government can effectively finance redistributive programs, and achieving reasonable standards of public services in cities requires major resources from it.

As the authors point out, many city "governments will probably need ever larger infusions of resources from state and federal governments, precisely at a time when those infusions are being reduced." Attempts to force cities to finance their own activities to support the poor could accelerate the withdrawal of non-poor households and firms, making it impossible to achieve service levels commensurate with the suburbs. This will perpetuate the economic inferiority and dependence of many city residents.

The urban poor will benefit most from aid focused directly on them rather than attempts to improve general economic conditions in cities. This means consumer empowerment programs that provide poor and unskilled individuals and households with purchasing power or job opportunities. Examples are job vouchers, housing vouchers, food stamps, transportation vouchers, medical aid programs, and school vouchers. Some have already been tried and proven feasible; the authors believe others should be tried as well. This is a policy recommendation of the authors, but not an unequivocal implication of the facts about urban decline revealed by their study.

Other policies recommended by Bradbury, Downs, and Small are metropolitan tax base sharing and removing anti-city biases from federal aid policies, such as transportation assistance and sewer-and-water assistance. Tax base sharing would equalize the fiscal resources of cities and their surrounding suburbs over the long run without submerging the political identities of any existing municipalities.

A third policy recommendation is to rely heavily on block grants and revenue-sharing forms of federal aid to cities. Such forms permit local discretion about how funds are used without sacrificing the federal financing necessary to redistribute resources geographically to those areas most in need. A new "menu" approach should be tried to maximize the "consumer sovereignty" of local and state governments without wholly abandoning federal goals and standards. Finally, Bradbury, Downs, and Small recommended carrying out federal and other anti-urban-decline policies at sufficient scale to be effective, rather than as token gestures of concern. 

Advanced Studies Program

When the annual participants of Brookings' numerous seminars and meetings are tallied, the figure is always a little surprising: 1,800-2,000 people, after all, would constitute a decent-sized "class" for a university. Brookings Advanced Study Program hosts that many every year while carrying out its function as the institution's educational arm. One of its main means is the National Issues Seminars, gatherings that examine public policy issues subject to legislative and administrative action. Shown here are participants in two of the six seminars being held in 1982. (Clockwise, from top) Presidential Counsellor Edwin Meese III addresses the 130 participants of ASP's Setting National Priorities seminar. Convened in May after publication of the annual edition of the Brookings study *Setting National Priorities: The 1983 Budget*, the seminar brings together leaders and representatives from business and labor, government, interest groups, scholars, the press, and authors of the volume to discuss issues related to the budget.

To the right, Vice President of the National Defense University and former Charge D'Affaires to the U.S. Embassy in Tehran Bruce Laingen chats with Brookings staff member Bernadette Toomey at the one-day seminar on terrorism, attended by representatives from the U.S. and other governments, business, universities, and the press. Areas covered included the impact of terrorism on American citizens at home and abroad, its impact in deterring American investment abroad, the ability of business, government and church officials to assess the risks of terrorism. Below right, former CIA Director William E. Colby comments on the prospects for combatting terrorism.

One special ASP program held every year is the Administration of Justice seminar, convened in Williamsburg, Virginia. Below left, Chief Justice Warren E. Burger and Attorney General William French Smith in discussion with other participants. The chief justice and attorney general confer for three days with chairmen of the Senate and House judiciary committees, representatives of the Federal Judicial Center, the Judicial Conference, and the Administrative Office of the United States Courts, Justice Department officials, and academics.

Brookings Today





Brookings Panel on Economic Activity

The performance of the American economy is a source of constant concern to makers of public policy and private sector executives alike, whether the times are good, bad, or in between. While statistics on that performance are easy to come by, incisive analysis of recent and current developments in terms comprehensible to the nonspecialist is not. The Brookings Panel on Economic Activity, formed in 1970 to promote professional research and analysis of key developments and problems confronting the U.S. economy, is directed by Brookings economist George L. Perry and William C. Brainard, provost of Yale University. The panel, which meets twice a year, brings together some 40 distinguished economists from around the country to discuss research papers on economic performance. Specific topics range broadly over many areas touching on macroeconomic performance: unemployment, inflation, taxation, monetary control, international finance, productivity, capital formation. The journal *Brookings Papers on Economic Activity*, incorporating the panel's articles, reports, and discussions, is published twice a year; volume 1 of 1982 was issued in August.

Participants in the first panel of 1982, thirty-third in the series, held in Washington, D.C. on April 1 and 2, included (top left) Stephen M. Goldfeld, Princeton, and Lawrence Klein, University of Pennsylvania; (top right) Lawrence H. Summers, MIT; (right) Martin Feldstein, Harvard, and Robert E. Hall, Stanford; (below right) Franco Modigliani, MIT; (bottom right) Christopher A. Sims, University of Minnesota; (bottom left) Perry, Brainard, and Brookings President Bruce K. MacLaury.



Looking Back, Looking Forward

Bruce K. MacLaury

This first issue of the *Brookings Review* marks a further step in the Institution's efforts to bring the broad range of its activities to a wider audience. Over the years, the *Brookings Bulletin*—predecessor to this *Review*—attracted a large and distinguished readership of policymakers, journalists, scholars, and the interested public. The more than 30,000 people who received the *Bulletin* were able to follow the results of Brookings' research on public policy issues through the summaries of its publications that appeared quarterly in the *Bulletin*.

The new format of the *Review* will continue to highlight key findings that grow out of the in-depth, empirical research that remains an essential focus of the Institution's policy studies in the fields of economics, government, and foreign policy. But the *Review* has been expanded to provide more opportunities for readers to learn the views of staff members and others associated with Brookings on current issues through the publication of additional signed articles, testimony before congressional committees, and presentations at Brookings conferences.

In addition to the scholarly research for which the Institution is widely known at home and abroad, Brookings has long sponsored a range of educational activities designed to increase understanding between the public and private sectors. For the past quarter-century, the Advanced Study Program has organized a variety of conferences and seminars for business executives, government officials, and professionals in many fields. Until recently, most of these sessions were off the record. Last year, however, the program inaugurated a series of National Issues Seminars open to the wider public. Beginning with this issue, the *Review* will report on selected conferences of the

Advanced Study Program, as well as some of the discussions that take place between Brookings staff members and participants in the Washington policy-making process.

The *Brookings Review* is designed to provide an up-to-date report on what's going on at Brookings. It is intended to serve a variety of constituencies. In the past, there have been close links between Brookings, the scholarly community, and federal officials. More recently, we have been expanding our efforts to build similar relationships with the corporate sector and with the media. The expanded *Review* is one part of these efforts.

More generally, the Institution is seeking new ways to be of service to a wider public. Last December, Roger Semerad, a businessman who formerly had served as a domestic policy aide to Presidents Nixon and Ford, and executive director of the 1980 Republican Platform Committee, joined Brookings as executive vice president—external affairs and as a trustee, to coordinate the many facets of Brookings relationships with the public: through its publications, conferences, relations with the media, and resource development. Assisting his efforts is the newly created Office of Public Affairs headed by Peggy Rhoades. This renewed emphasis on outreach builds on a long tradition of active participation by Brookings staff members in the practical world of public policy.

In the end, you, the readers, will tell us whether the expanded format of the *Brookings Review* is providing the kind of information and views on public policy issues that you find useful. I would welcome your comments and reactions to the broadened range of perspectives and activities we plan to bring to you on a quarterly basis.

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